INTRODUCTION
TO
ECONOMICS

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INTRODUCTION TO ECONOMICS

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INTRODUCTION TO ECONOMICS

BY

THAMES ROSS WILLIAMSON
SOMETIME ASSISTANT PROFESSOR OF ECONOMICS AND SOCIOLOGY
IN SMITH COLLEGE; AUTHOR OF "PROBLEMS IN AMERICAN
DEMOCRACY"; EDITOR OF "READINGS IN ECONOMICS"
AND "READINGS IN AMERICAN DEMOCRACY"

Things ever seen are unseen

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PREFACE

THERE has long existed a widespread dissatisfaction with the texts available for introducing the student to the subject of economics.

This book has been written in the effort to supply an introductory economics which shall prove generally satisfactory. Briefly, the features distinguishing this text are as follows:

First, the organization of the book is simple and logical. Every teacher of economics knows that beginning students are as likely to be bewildered as enlightened by the traditional arrangement of the text material. For this reason, the author has paid less attention to the customary arrangement of economic data than to the needs and limitations of the student. Part I of this text traces the origin and development of our industrial system. Part II analyzes this system into its component parts, so that the student may see just how the complex industrial mechanism works. Parts III and IV discuss the reform and improvement of our industrial system. So concise a plan ought to prove readily comprehensible to the beginner in economics.

Second, the subject matter of this book is easy to understand. Many people think of economics as a difficult subject, but probably this notion is due more largely to the inaptness of the average text, than to the inability of immature students to grasp the fundamental principles of economics. The language of this text is believed to be clear, simple, and free from ambiguity. The technicalities of economics have been explained in simple language, and have been carefully illustrated by concrete and familiar examples. Where they obviously have no material significance in an introductory course, obsolete and antiquated notions have been omitted. At regular intervals in the text, careful summaries are used to clinch the preceding argument, and to prepare the way for the subsequent discussion.

Third, this is intended to be a practical text. Much of the dissatisfaction with economics is due to the fact that the average text devotes relatively much time to theoretical discussions, and relatively little time to practical problems. The common sense of the student tells him of the existence of such problems, yet he too often finds them slighted by the text. Now, the author of this text has assumed that economics is, and ought to be, an intensely practical subject. For this reason he has discussed at some length the grave economic problems confronting the nation. Taxation, banking, socialism, the tariff, labor legislation, these and other current issues are treated in some detail. Finally, each chapter is followed by lists of topics for investigation, report, or classroom discussion. The aim of these topics is to familiarize the student with actual conditions, to stimulate his powers of observation and reasoning, to encourage him to challenge popular economic fallacies, in short, to make economics of practical value in his daily life.

Despite this emphasis upon the practical side of economics, however, the author does not feel that he has neglected economic theory. It is true that he has omitted from the text discussion of some archaic and abstract ideas which are no longer of any particular service, at least to the beginning student. On the other hand, the great theoretical problems of economics have been presented squarely to the student. Much of Part I and all of Part II are primarily theory.

The author's treatment of price and distribution will probably be considered novel by many teachers. Among economists there is an increasing discontent with the traditional methods of dealing with this phase of theory, and yet few will venture to say how the matter should be treated. In this quandary, the author has steered a mid-course between what has long been generally accepted and what is probably the trend of the future. In planning his treatment of economic theory, the author has had the aid and advice of more than a score of representative American economists, and though he does not pretend that the result will prove entirely satisfactory to all of them, the treatment in the text is in some respects a synthesis of their thought.

The text is so arranged as to permit of a wide discretion in the use of material. Parts I and II may be considered a unit, and together might suffice for a brief course in economics. Beyond that point, either Part III or Part IV, or parts of each or both, might be combined with Parts I and II without destroying the unity or continuity of the course.

The text is accompanied by a volume of *Readings in Economics*, and at the end of each chapter in the text will be found a list of questions on the corresponding chapter in the *Readings*. Use of this latter volume is optional, of course. It may be pointed out, however, that because of the difficulty of finding for beginners collateral reading which is both apt and comprehensible, this carefully selected series of extracts from a wide variety of sources may prove of value for students who are expected to read beyond the text.

In the preparation of this text the author has received valuable assistance from a number of sources. Though such aid in no way diminishes his responsibility for the shortcomings of the book, the author desires here to acknowledge the help of the following persons:

Professors F. W. Taussig, T. N. Carver, O. M. W. Sprague, C. J. Bullock, W. Z. Ripley, A. P. Usher, James Ford, R. F. Foerster, and A. E. Monroe, of Harvard University; Professor C. W. Doten of the Massachusetts Institute of Technology; Professor Irving Fisher of Yale University; Dean Sara H. Stites of Simmons College; Professor Edwin R. A. Seligman of Columbia University; Professor J. W. Crook of Amherst College; Professor John R. Commons of the University of Wisconsin; Professor J. E. LeRossignol of the University of Nebraska; Professor Edmund E. Day of the University of Michigan; Professor Eliot Jones of Leland Stanford University; Professor Norman J. Silberling of the University of California; Dr. Arthur N. Young of the United States Department of State; Dr. John B. Andrews of the United States Department of Labor; Hon. Gifford Pinchot, Governor of Pennsylvania; Owen R. Lovejoy, Secretary of the National Child Labor Committee; Dr. Alvin S. Johnson of *The New Republic;* Dr. Harry Laidler, Director of the League for Industrial Democracy; Mr. Daniel Bloomfield, Consulting Specialist in Industrial Relations; Mr. J. P. Warbasse, President of the Coöperative League of America; Mr. Winthrop Tirrell, Head of the Department of Economics, Boston High School of Commerce; Miss Ellen L. Osgood, of the Haaren High School, New York City; and Mr. M. M. Beddall, Head of the Department of Social Sciences, Lewis and Clark High School, Spokane, Washington. Gratitude and thanks are due Mr. Beddall in special measure because of his sustained and conscientious labor on the manuscript at a time when he was suffering from a severe illness.

THAMES ROSS WILLIAMSON

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April 20, 1923

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INTRODUCTION TO ECONOMICS

PART I

THE DEVELOPMENT OF AMERICAN INDUSTRY

CHAPTER I

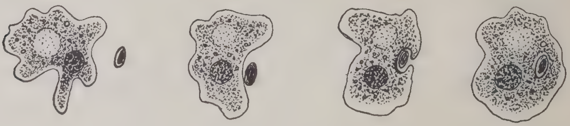
THE MAKING OF NORTH AMERICA

1. An old story that is ever new. — We are about to begin the story of how man gets a living. No story of man is more *ancient*, for it carries us back to the very dawn of history. And yet no story is more *modern*, for with the coming of each new day the activities of millions of people add to it in some way and to some degree.

How man strives, first to keep alive, and later to satisfy his wants with less and less effort, constitutes the most *vital* story ever told. Most of our years, indeed, are spent in grappling with the problems which arise out of the necessity of getting a living. These problems affect some of us more directly and more vitally than they affect others, but no one can altogether escape from them. Whatever our abilities or our inclinations, however protected from the hardships of life or removed from practical affairs, the question of getting a living somehow touches the daily life of each of us.

We shall find this story of getting a living to be of *fascinating interest*. In one sense, it describes a wonderful game, in which man struggles to wrest a living from Nature. Weak and ignorant, primitive man was for many ages appalled by the immensity, the power, and the indifference of his neighbor the earth. But gradually man learned that through an intelligent coöperation with his fellows he could make an effective use of the products and the powers of Nature. With the gradual progress of civilization the getting of a living at length came to be, not merely the process of securing such bare necessities as food, shelter, and clothing, but also the procuring of the comforts and luxuries of life.

Before inquiring into the manner in which man so markedly improved his living, let us see something of the land we live in, how it came into existence, and what influences shaped it to be the home of a numerous and prosperous people. By so doing we shall be helped to understand the whole background of American industry.

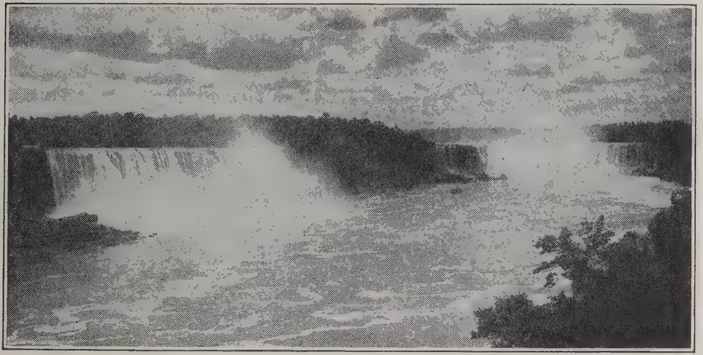


An Amoeba Taking in Food

One characteristic of all forms of life is the ability to subsist upon environment.

2. The building of the continents. — Science has shown that the globe on which we live is many millions of years old. Beginning as a vaguely defined mass of gaseous material, it gradually took shape through a process of condensation. We are told that once the whole surface of the earth was liquid, then here and there bits of land appeared above the surface of the waters. In what is now North America the Appalachian Mountains appeared relatively early in geologic history, while the Rockies were formed relatively late. Then followed long periods in which most of the land surface alternately rose and sank, until at length the vast area between the Appalachians and the Rockies appeared permanently above the waters. Though the continent of North America has long had its present form, it should be remembered that millions of years of persistent effort were necessary before Nature succeeded in even sketching in outline the future home of the American people.[1]

3. The significance of natural power. — No thoughtful person can observe such common phenomena as the falling of rain, the rush of the winds, or the regular succession of day and night, without being impressed with the persistent force with which Nature works. And though the student may not yet appreciate the relation of natural phenomena to the practical problem of getting a living, he will do well to look with respect and with attention upon natural power. However much we may boast of our "mastery" of Nature, a little thought will show that our very lives are dependent upon natural phenomena. The action of winds and rain, the workings of heat and cold, the effects of running water, the constant pressure of the atmosphere, such factors as these play a fundamental part in our daily lives. To under-estimate the numerous forms of natural power is to remain ignorant of the fundamental conditions of life; to appreciate natural power is to



AN EXAMPLE OF NATURAL POWER

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[1] For a more detailed account of the geologic history of North America, see Williamson, *Readings in Economics*, pages 5-7. (Hereafter this book will be referred to, in the footnotes, simply as the *Readings*.)

understand something of the business of getting a living. Let us notice, therefore, a few of the ways in which natural power has influenced our daily lives.

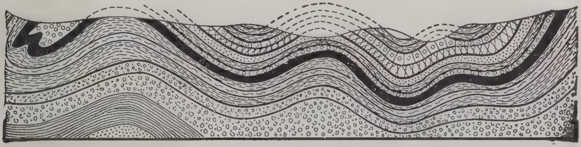
4. The origin of coal. — Coal is one of the most valuable of our natural resources. Widely used to heat our homes, and to furnish power for hundreds of thousands of mills, shops, and factories, it is difficult to exaggerate our dependence upon this commodity. And it is the age-long working of natural power which we must thank for this priceless gift. Millions of years ago much of North America was swampy lowlands, which were covered with luxuriant vegetation. As the result of the gradual decay of trees, shrubs, and other forms of plant life, great deposits of vegetable matter accumulated upon the surface of the earth. Later the repeated sinking of the land surface covered these deposits with mud and gravel, and, in time, buried the whole mass deep in the bowels of the earth. Here a high temperature and long-continued pressure from the over-lying mountains transformed these deposits of vegetable matter into the substance known to us as coal. The coal deposits of the United States outrank, both in quantity and in quality, those of any other country in the world.

A Bit of Coal Under the Microscope

5. The formation of iron ore. — Scarcely less important than our coal deposits are the vast quantities of iron ore which are found within the boundaries of the United States. Tools and implements, machines and engines, the framework of buildings and the hulls of great ships, all these are so largely and so commonly made of iron or steel that some authorities maintain that iron is of even more importance to our industrial efficiency than is coal.

And as in the case of coal, iron ore is the result of the age-long working of various forms of natural power. Iron ore is the product of complex chemical and physical changes, and it exists in numerous kinds of soil and rock. Many of the deposits are too small to repay mining, but fortunately the action of underground water has in many instances collected these small deposits into great accumulations which we can easily and profitably utilize.[1] It is largely due to the ceaseless action of underground water that our iron mines are to-day a source of great wealth.

6. The importance of copper. — Half a century ago coal and iron were easily our two most important mineral substances. Undoubtedly they still are, and yet their dominating position is being threatened by copper. This metal has come into prominence in recent times chiefly because of the widespread use of electricity in industrial enterprises. Copper is the best cheap conductor of electricity. As a consequence, the application of electricity to the telegraph, the telephone, and numerous other industries, has greatly increased the importance of copper.



Section of the Earth's Crust in a Coal Region

The black layer is coal.

And here again Nature has unconsciously been kind to us, for in addition to lavish gifts of coal and iron, she has provided us with priceless deposits of copper. No other country is known to have copper deposits as pure, as extensive, and as easily worked, as those which are situated within the boundaries of the United States. The origin of copper is complex, but there is no doubt that it is the product of long-continued chemical and physical changes.

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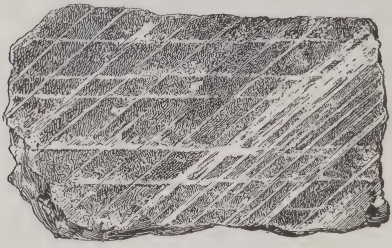
[1] For a description of the part played by water in the concentration of metal deposits, see the *Readings*, pages 8–9.

7. Petroleum. — Petroleum is an oily liquid which man's ingenuity has contrived to separate into kerosene, gasoline, benzine, paraffine, and other elements or "by-products." The numerous by-products of petroleum are used for a wide variety of purposes, but especially for illumination, for motive power, and for the lubrication of machinery.

The precise origin of petroleum is uncertain. It is often formed by the decomposition of organic matter, though apparently it may be due to a variety of causes, depending upon the conditions. As a thick liquid, dark brown or greenish in color, petroleum collects in cracks and other underground cavities. Usually these deposits of petroleum are subjected to great pressure from the over-lying soil and rocks. When the cavities are opened up by the boring of a "well," this pressure usually forces the petroleum to the surface of the earth. Sometimes, however, the petroleum must be pumped to the surface.



Rock Showing Scratches Made by Movements of the Glacier

8. The Ice Age. — One of the most romantic chapters in all the physical history of North America deals with the story of the Ice Age. Long, long ago, the geologist tells us, a glacier consisting of great ice-masses moved slowly down from the Far North. At the time of its furthest extent southward, the glacier covered roughly all of Canada and that part of the United States which is now embraced in New England and the area north of the Ohio and Missouri Rivers. After remaining in possession of these northern portions of the continent for an unknown period of time, the glacier gradually retreated to the Far North by the process of sliding and melting.

But though our country has been free of a permanent sheet of ice for many thousands of years, the effects of the glacier can still be traced. Moving slowly but with great force, the glacier smoothed down mountains and filled up depressions in the land surface. The ease with which we have constructed highways and railroads in the upper part of the Mississippi Valley is due partly to this levelling influence of the glacier as it moved southward. The moving masses of ice also scooped out ponds and lakes which have since proved to be valuable reservoirs of water. In some cases the glacier changed and deepened river beds, and even created new rivers. Lastly, the glacier exerted a marked influence upon our forests, soils, and climate.[1]

9. Forests. — Much of the physical history of North America is still a blank, yet here and there our knowledge of the continent stretches far into the remote ages. We know, for example, that in very ancient times the whole of North America was covered with a heavy forest growth. With the passage of time many forms of vegetation disappeared, while other types of plant life developed and spread. The southward movement of the glacier resulted in the destruction of a large share of our northern forests, but with the retreat of the ice much of this denuded area was gradually reforested. When North America was settled by European colonists, a heavy forest growth was typical of many parts of the country. Practically all of the area east of the Mississippi River was one vast continuous forest. West of the Mississippi stretched a great plain which was practically without trees, but further to the west the forests began again and continued without interruption to the Pacific Ocean.

10. Waterways. — Nature has provided North America with the most elaborate and valuable system of waterways in the world. The St. Lawrence-Great Lakes system gives easy access to the most fertile sections of the continent. It is estimated that we are provided with more than 20,000 miles of navigable rivers, and with an additional 20,000 miles which dredging and similar improvements at moderate cost might render navigable.

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[1] For a more detailed account of the effects ot the glacier, see the *Readings*, pages 9-11.

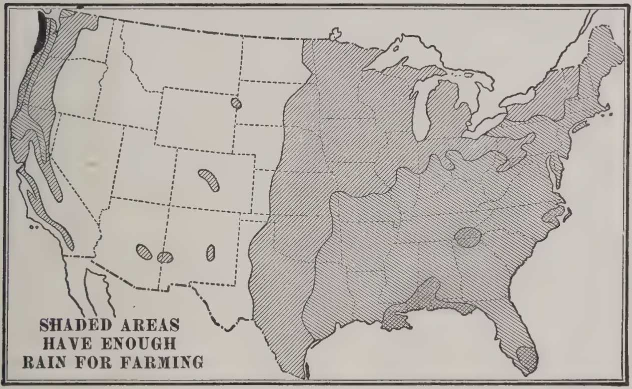
The Atlantic Coast is well provided with good harbors, those of Portland, Boston, and New York being particularly fine. Several great estuaries, such as Long Island Sound, Delaware Bay, and Chesapeake Bay, enable large ocean-going vessels to penetrate inland to a considerable distance. The power which our waterways are capable of furnishing is said by experts to be greater than that of all the other countries of the world combined.

11. Soil. — One of the most important products of natural power are those types of soil which are capable of supporting plant life. Long centuries of chemical and mechanical action have crumbled rocks into tiny particles, and have changed animal and vegetable material into soil richly endowed with elements encouraging to plant growth. The glacier ground up trees and rocks, and, in retreating northward, left behind this pulverized mass. Though some of our lands are sandy or rocky because of glacial action, many other sections of the United States are to-day rich farming communities because of the glacial deposit of helpful soil ingredients.

As the result of these and other changes, the area occupied by the United States is to-day well provided with fertile and productive soils. We possess nearly 3,000,000 square miles of territory, of which nearly 2,500,000 square miles enjoy a summer climate which is suitable for agriculture. Except for extensive areas in the Far West, the United States enjoys an amount of rainfall which is sufficient for agricultural purposes. Altogether we enjoy such a wide variety of soil and climate that American farmers are able to raise good crops of very diverse products. A general failure of our agricultural crops is unlikely, because a loss due to poor crops in one part of the country is almost certain to be offset by good crops in other sections.

12. Climate. — During the period which preceded the coming of the glacier, the climate of this continent seems to have been mild and uniform. But after the retreat of the ice, the climate of North America became "modern," that is to say, it took on the features which characterize it to-day. Instead of being uniformly mild, the climate of most of North America now consists of four well-marked seasons: spring, summer, autumn, and winter.

The constant succession of these four seasons, together with frequent variations in temperature during each season, has been an important factor in our national prosperity. The climate of the United States is said to be very nearly ideal, that is to say, it is a climate which is *ideal from the standpoint of civilization.*[1] Its variety encourages a well-diversified life, and the fluctuations in temperature from day to day and from week to week stimulate us to greater activity than we could comfortably engage in if the climate were monotonously uniform. If our climate were more frigid, it would tend to depress and discourage us; if it were more tropical it would tend to make us indolent and slothful. While it has drawbacks, the climate prevailing over most of continental United States



Dry farming is successful in the areas unshaded in the map.

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[1] For a discussion of the relation of climate to civilization, see the *Readings*, pages 11–13.

invigorates our people, and makes it possible for them to engage in active work during the greater part of the time.

13. North versus South America. — So far we have been speaking of North America, and have said nothing of the natural resources of the southern continent. Since it is of North America that we are inhabitants, it is of course fitting that we show more interest in the northern than in the southern continent. But there is another reason why any discussion of man and his living should emphasize North America rather than South America. This is that, of the two continents, the northern is industrially the more important.

Each continent is roughly in the form of a triangle, with the apex or smaller end pointing southward. But whereas the larger end of the South American triangle is within the tropical zone, and only the tapering end is within the more favorable temperate zone, the greater part of the North American triangle is within the temperate zone. In minerals and other natural resources North America is far richer than South America. Both continents are provided with splendid river systems, but the finest rivers of South America flow through a dense uninhabitable jungle, while our finest rivers — constituting the Mississippi system, — drain a fertile territory which is crowded with prosperous homes.

With regard to location for world trade the northern continent again has the advantage. The ports of South America face a relatively empty ocean on the west, and the little-developed continent of Africa on the east. The ports of North America, in addition to being more numerous and more suitable for commerce than are those of the southern continent, face the teeming Orient on the west, and the busy markets of Europe on the east.

14. The heart of North America is ours. — Not only is North America industrially more important than the southern continent, but the choicest portions of the northern continent are in the possession of the people of the United States. Our neighbor Canada has a cold and snow-bound frontier on her north, while on our south Mexico and the Central American countries lie too near the tropics easily to become the seat of a high industrial civilization. The great heart of temperate North America, on the other hand, lies within the boundaries of the United States. In a bountiful supply of forests and fertile soils we are greatly blessed. We have abundant deposits of every mineral necessary to an advanced industrial life, except tin and platinum. Fortunately, the physical geography of our country encourages the development of means of transportation. Not only do we enjoy a splendid series of navigable waterways, but most of our land surface is level enough to facilitate the building of wagon- and rail-roads. Few mountain ranges hinder the construction of trans-continental railroads in this country, and of these only one, the Rockies, is a serious obstacle to effective transportation.

15. Summary and forecast. — From what has been said in the preceding pages, it should be clear that the territory now occupied by the United States has been prepared by Nature to be the home of a numerous and prosperous people. By this we do not mean that Nature deliberately and consciously worked with an eye to our benefit. On the contrary, *natural power expresses itself blindly and mechanically, without regard to man's likes or dislikes.* We do mean to say, however, that through unmeasured ages the persistent activity of natural power has produced a vast continent, and has endowed it with an abundance of those resources which are the basis or starting point of an industrial civilization. Coal, iron, copper and petroleum, forests, waterways, soil and climate, in dispensing all of these gifts Nature has been unusually generous with us.

But we have touched upon only one side of the story of getting a living. Man wrests a living from Nature, and in North America the basis of a good living has existed for countless ages. For a long time, however, North America was barren of human inhabitants, and the resources of which we have been speaking remained unused. Let us see, in the next chapter, how man first made the acquaintance of the natural wealth of North America, and how he used it in the important business of keeping himself alive.

Questions on the Text

1. What two activities of man may be said to constitute the most vital story ever told?
2. In what sense does this story describe a wonderful game?
3. Describe, briefly, the formation of the North American continent.
4. What is the significance of natural power?
5. Describe clearly the origin of coal.
6. What is the relation of underground water to iron ore deposits?
7. What accounts for the growing importance of copper?
8. What is petroleum?
9. What is meant by the term "Ice Age"?
10. Indicate the extent of our forests at the time that North America was colonized by Europeans.
11. Characterize our waterways.
12. Name some ways in which soil is formed.
13. What is meant by saying that our climate is very nearly an ideal climate?
14. Compare North and South America with respect to industrial importance.
15. Explain the statement that "the heart of North America is ours."

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter I.)

1. Why do we believe that the earth had a long history before the appearance of any of the solid portions now to be seen? (pages 1–2.)
2. Explain the nebular hypothesis. (pages 2–3.)
3. Describe the work of the winds. (page 3.)
4. Describe the work of running water. (pages 3–4.)
5. Describe the work of ice. (page 4.)
6. Describe the effects of alternate heating and cooling. (pages 4–5.)
7. Trace the steps in the formation of the North American continent from Archaean times into the Carboniferous period. (pages 5–7.)
8. Name two characteristics of natural power which are of importance to us. (pages 7–8.)
9. Illustrate the mechanical deposit of ore. (pages 8–9.)
10. Illustrate the chemical deposit of ore. (page 9.)
11. What changes in drainage were effected by the glacier? (page 10.)
12. Describe the effects of the glacier upon the soil. (pages 10–11.)
13. What are the three characteristics of a good climate? (page 12.)

14. To what extent are these three characteristics found in Europe and in the United States? (page 12.)
15. What is the relation between climate and character? (pages 12–13.)

Topics for Investigation and Report

1. The physical geography of your section of the country.
2. Make as long a list as possible of the ways in which natural power may express itself.
3. The extent of forests in your section.
4. Distribution of waterways in your section.
5. Make a list of the various ways in which coal is used in your community.
6. Make a list of important articles which are made partially or entirely of iron or steel.
7. Interview some one familiar with the electrical trades as to the industrial uses of copper.
8. The sources of the building stone which is used in your community.
9. Make a list of the various uses to which the different by-products of petroleum are put.
10. Distribution of rainfall in the United States, with particular reference to your section.
11. Varieties of soil in your section. Discover, by interviewing some one familiar with farming, the crops best suited to each.
12. Compare the natural resources of North America with those of Europe.
13. Compare the natural resources of North America with those of Asia.
14. Compare the natural resources of North America with those of Africa.
15. Compare the natural resources of North America with those of South America.

Questions for Classroom Discussion

1. What is the distinction between necessities, comforts, and luxuries?
2. What natural phenomena have most impressed you with a respect for natural power?
3. What forms of natural power has man so far failed to harness in his efforts to get a good living?
4. Are there any good substitutes for coal? If so, what are they?
5. What is the relation between the automobile industry and the exploitation of our petroleum wells?

6. Discuss the relative advantages of gas and electricity for lighting purposes.
7. Could the waterways in your section be more advantageously used?
8. Are there laws in your state regulating the building of camp fires in forested areas? To what extent are such laws obeyed?
9. The protection by law of wild animal life in your section.
10. During what part of the day do you work most effectively?
11. During which season of the year do you work most effectively?
12. Discuss the relation between civilization and a tropical climate.
13. Discuss the relation between civilization and a frigid climate.
14. Discuss the relation between civilization and a temperate climate.
15. To what extent is the climate of your section favorable to an energetic life?

CHAPTER II

HOW THE INDIAN GOT A LIVING

16. The Indian drifts into North America. — No one really knows where the first human inhabitants of America came from, though at the present time the best authorities believe that these people came from Asia.[1] These authorities believe that the first human inhabitants of this country were the ancestors of our present-day Indians, and that these first Americans probably drifted from northeastern Asia across Bering Strait, into Alaska, and thence southward.

A Virginia Indian

As drawn by one of the early colonists.

At the time that he entered North America, it is likely that the Indian knew nothing of agriculture, and that he had no domestic animals. On the other hand, the first Indian emigrants from Asia were probably familiar with fire-making, the art of cooking, the use of skins for clothing, and the use of the bow and arrow for hunting.

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[1] For an authoritative discussion of the probable origin of the American Indian, see the *Readings*, pages 15–16.

As the Indians spread over the land, the natural resources of North America were for the first time turned to account by human beings. Wherever the Indian roamed there developed what we have called the game of getting a living. Thus it was the rude and untutored savage who began in America the contest which we of to-day are carrying on, and which our descendants in turn must carry on.

a. What is meant by "getting a living"

17. It is instinctive in man to want things. — We have used the term "getting a living" several times. Everyone has a general idea of what is meant by this phrase, but at this point it will be profitable to inquire a little more precisely into its meaning.

Let us notice, first of all, that it is instinctive in man to want things. Fundamentally, human life depends upon such necessities as food, clothing, and shelter. All human beings instinctively desire these and other of the necessities of life. Moreover, the wants of man tend to expand, so that once he has provided himself with a bare living by securing a certain minimum of food, shelter, and clothing, man generally desires to secure comforts and luxuries.

18. Man is self-centered. — As a general proposition all men are self-centered. This means that the individual tends to think first of his own wants, and of the wants of a few people for whom he cares intensely, as, for example, his father, mother, wife, and children. Ordinarily he devotes himself to the interests of additional persons only after he has helped to satisfy the basic wants of the small group of which he is a member. Some persons resent the statement that man is self-centered, and say that this ought not to be. But here we are speaking of facts, and not of what *ought* to be. Though many individuals have a deep interest in large numbers of people beyond their own family circle, it is still true that the personal interests of the average man occupy a larger place in his regard than do the interests of people for whom he has no particular affection.

19. Man instinctively struggles to satisfy his wants. — Most men would probably prefer to be able to satisfy their wants without effort on their part. But this is not possible. As we have seen, natural power works blindly, automatically, and without regard to man. From the standpoint of man, Nature is passive and indifferent, and if she is to yield him a living, man will have to take the initiative. This is precisely what man does. He attempts to handle or to utilize Nature in such a way as to reap a benefit to himself. In other words he engages in labor. *Labor we may define as all effort engaged in for the purpose of aiding in the getting of a living.* [1]

20. The significance of the Indian. — We have said that man derives his living from Nature. But is this true? Do not many people get a living by working for other individuals, rather than by wrestling with Nature? Yes, in one sense many people *do* earn a living by working for other individuals. The stenographer, the factory hand, and countless others work for employers, rather than themselves grappling with Nature.

But *fundamentally* the living of *all* individuals is in some way derived from Nature. Were it not for land, minerals, furs, timber, grain and other products of Nature not a single one of our great staple industries could exist. To give but a single and limited example, a shoe salesman may earn a living by working for the shoe manufacturer, but neither the salesman, the manufacturer, nor any other of the numerous people associated with the shoe industry, could get along without leather. And leather depends upon animals, and animals depend upon plant life, and plant life is a product of Nature. In every other industry the same sort of analysis would lead us back to Nature as the great fundamental source of man's living.

Here lies an important reason for noting the manner in which the Indian got a living. The Indians of ancient America were rude savages, who were in direct and intimate contact with numerous aspects of Nature. Whereas *we* have developed so complex a civilization that often we overlook our ultimate dependence upon Nature, the Indian's culture was not sufficiently complex to obscure his relation to " Mother Earth." A brief survey of Indian industrial life is therefore of value, because it illustrates clearly the principle that Nature is the ultimate source of all that supports human life.

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[1] For a further discussion of labor, see Section 222

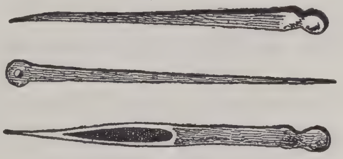
b. What man seeks from Nature

21. Not all things are desired by man. — Fundamentally man depends upon Nature for his living, but not all natural products are desired by man. Neither the Indian nor civilized man ordinarily wants such things as noxious insects, common weeds, or polluted water. Man does not want these things because they do not satisfy his wants. From his standpoint they are either positively injurious, or they are useless. We do not take pains, either to secure possession of such things, or to increase the supply of them. On the contrary, we ignore or avoid such things, or even take the trouble to destroy them. Things which man does not consider useful have small part in the getting of a living, and therefore they will not be discussed again in this book.

22. The nature of utility. — One of the most important definitions in the whole field of economics is that of utility. *Utility is the power to satisfy a want.* The things which possess utility may be divided into two classes.

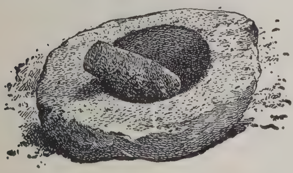
On the one hand, *things having utility may be so abundant as to be had free.* Air and sunlight are ordinarily examples of this class of things. Both air and sunlight possess such great power to satisfy human wants that they are indispensable to life itself. But in spite of their great utility, they are ordinarily so abundant that no sensible person will make an effort to increase his supply of them. Things in this class are called " free goods " because ordinarily a plentiful supply of them may be had freely, without effort on man's part.

On the other hand, *things having utility may be scarce.* By scarcity we mean that there is less of a particular thing than is wanted at a particular time and place. A thing may be scarce, regardless of its absolute amount. Thus horses are scarce in a community in which there are 1,000 horses, if people want, say, 1,500 horses. And though there are only two horses in a community, we cannot say that horses are scarce, if only one horse is wanted. The great majority of things, such as houses, automobiles, furniture, tools, books, and clothing, are scarce, not because there are few of them in existence, but because at a particular time and place people want more of these things than are actually available. Man gives most of his attention to things which not only have *utility* for him, but which are also so *scarce* that he cannot get them without effort. Man struggles to increase the supply of things having both utility and scarcity, and it is primarily in connection with this class of things that economic problems arise.



Piercing Implements of Bone

Such articles as these had great utility for the Indian.



Implements for Pounding Grain

Such articles as these were wealth to the primitive Indian.

23. The nature of wealth. — Since man's well-being or welfare is believed by him to depend upon his supply of things which possess both utility and scarcity, we say that this class of things constitutes wealth. Thus *utility* and *scarcity* are the two earmarks of wealth, as the economist uses that term.[1]

Wealth is commonly thought of as material objects, such as houses, automobiles, work animals, and money. But human services, such as those of a teacher, a physician, a lawyer, or an actor, may be included in our definition of wealth. These and numerous other services have utility, or the power to satisfy human wants. They also are scarce, that is to say, there are fewer of these services than are wanted. Such services have to be paid for, just as we must pay for a hat, or a clock, or a stove. *Wealth, then, includes all material objects and all human services which have utility and which are scarce.* Because these two classes of things are *good* for the purpose of satisfying wants, the economist calls them " economic goods," or simply " goods." The terms " wealth " and " goods " may be used interchangeably.

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[1] Wealth includes many harmful things, such as drugs, alcoholic liquors, and tobacco. These things must be included in our definition of wealth, because they have utility and are scarce. Utility does not necessarily mean the power to *benefit* man, but the power to satisfy his wants. Whatever is *believed* by man to have utility for him will be regarded favorably by him. If such things are scarce, they become the object of economic activity, whether or not they are actually beneficial to man.

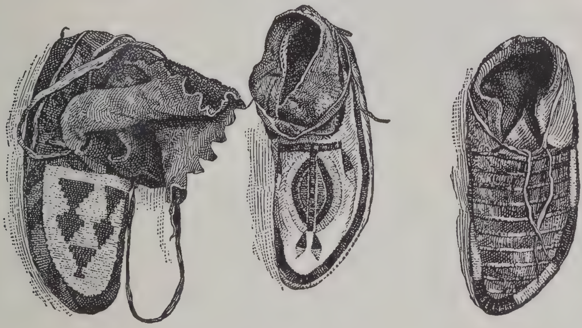
The process of getting a living is fundamentally a process of securing a supply of those types of wealth which satisfy our need for food, clothing, and shelter.

c. Nature of the Indian's living

24. How the Indian obtained food. — Let us see how the Indian made use of Nature in the effort to provide himself with food, clothing, and shelter.

Getting food was a chief concern of the Indian. The Indian secured food by hunting, by fishing, by gathering wild vegetable products, and by tilling the soil. The caribou and deer in the northern woods, the bison of the plains, and innumerable other food animals, were hunted skilfully and with success. On the seacoasts, along the lakes, and beside numerous streams, the Indians habitually fished for a part of the year. In the neighborhood of the Great Lakes the gathering of wild rice was an important occupation, while in western and southwestern United States many Indians lived chiefly on the seeds of wild grasses. In southern and southwestern United States agriculture was well-developed, while in the northeastern part of the country more primitive forms of agriculture were practiced. Corn, now our most valuable crop, was developed by the Indians, probably from a wild grass native to Central America.[1]

25. How the Indian provided himself with clothing. — Next in importance to a supply of food is provision for clothing. Indian clothing was of great variety, depending upon the climate, and upon the materials which the savage knew how to utilize. The Eskimo of the cold North made warm and well-fitting garments of fur. Southward from the land of the Eskimo, Indian clothing was largely of skins, rather carelessly made, and inclined to be loose-fitting. In the milder parts of the country clothing was often scanty, chiefly because a protective covering was less necessary than in the colder regions. In southwestern United States, where Indian culture was relatively high, cotton was grown and made into textiles for use as clothing.



INDIAN MOCCASINS

26. Indian houses. — A wide variety of houses was used by the North American Indians. The snug snow house of the Eskimo is familiar to every boy and girl who has read tales of the Frozen North. Equally comfortable were the semi-subterranean houses of the people further to the south. The Iroquois of New York, and the Indians of the Puget Sound region, built great log structures which housed a number of families under one roof. The skin *tipi* or wigwam of the Plains Indians was admirably suited to their nomadic, buffalo-chasing life. In Arizona, New Mexico, and other parts of the Southwest, the Indians often lived in great *pueblos* or towns, constructed of adobe or soft stone, and well provided with storage rooms, water reservoirs, and similar household conveniences.

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[1] For a detailed description of the types of food used by the Indian see the *Readings*, pages 23–25.

Indian Wigwam Made of Bark

27. The Indian got a poor living. — At the time of the discovery of America, the northern continent was the home of numerous Indian groups. Culturally, these groups ranged from miserable root-diggers and seed-gatherers to peoples well advanced in the fundamentals of agriculture, government, and the esthetic arts. But though some groups had accumulated a considerable amount of wealth, it is undeniable that the average North American Indian got a poor living from his natural environment. Most of the tribes got little beyond satisfying their needs for food, clothing, and shelter. Even these necessities were not always properly supplied. Clothing and shelter were often inadequate, while among even the agricultural tribes famine often intervened between harvests. In the fertile Mississippi Valley, now the comfortable home of millions of people, a handful of Indians often had hard work to keep alive. All in all, the North American Indian got a poor living. *Why was this?*

d. Why the Indian got a poor living

28. Man must do two things in order to secure a good living. — If at this point we can discover why the Indian got a poor living, we shall be helped to understand many of the problems which will confront us later in this book. We may begin by noticing that in order to get a good living, man must do two things. *In the first place, he must coöperate effectively with his fellows. In the second place, he must make an intelligent and extensive use of Nature.* These two sets of activities supplement each other, for it is by means of effective coöperation with his fellows that man acquires the strength and the capacity to make an effective use of Nature. Let us notice that the Indian failed, both to coöperate effectively with his fellows, and to make an effective use of Nature.

An Example of the Division of Labor

Indian women gathering wild rice.

29. The principle of the division of labor. — In order to understand the significance of industrial coöperation,[1] we must notice the principle of the division of labor. Suppose, for example, that I live in a pioneer community. I desire to provide myself with a house, just as many of my neighbors wish to provide themselves with houses. But I am not strong enough to build a house by myself, and I am not skilful enough to construct all of its parts to my satisfaction. Experience has taught me the advantage of coöperating with my neighbors in such cases. I accordingly persuade my neighbors to come and help me build the house. Heavy timbers which I could not have handled alone are easily brought into place by the combined efforts of a number of men, some pulling, some lifting, and some guiding the timbers into position. *Thus we have coöperated by dividing up our labor.*

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[1] By coöperation is here meant simply the working together of different persons or groups of persons. Coöperation in this sense is to be distinguished from coöperation as used in Chapter XXI.

In planning the construction of the house, we found that our abilities were quite different. One of my neighbors is a clever plasterer, another is an expert shingler, while I have more skill at constructing locks and hinges than at any other phase of house-building. We recognize, accordingly, that the house will be built more skilfully and more rapidly if each of us does chiefly the type of work for which he is best fitted. We agree to this. The plasterer finishes the walls, the shingler puts on the outer roof, I make locks and hinges for the doors and windows, and each of the other men does what he can do best. *Again we have coöperated by dividing up our labor.*

After we have finished my house, all of us go over to a neighbor's homestead and together we build him a house. We do the same for a third man, for a fourth, and so on until each pioneer in the neighborhood is provided with a house. In building each successive house, each man tends to confine himself largely to the type of work which he can do best. *Since practice makes perfect, each man becomes more and more skilful at his special work as more and more houses are built.*

30. The advantages of the division of labor. — The above example will illustrate the principle of the division of labor, which is *the most fundamental principle in industry.* We shall see more of this principle, but here it will suffice to notice that three great advantages flow from the division of labor.

First, labor is facilitated when heavy or complicated work can be divided up into a number of simple operations. Second, the division of labor allows men to take advantage of their varying abilities. Third, when men divide up their labor and each specializes in one type of work, the repetition of that one task gradually renders each individual very skilful.

These are the fundamental advantages of the division of labor, all of which are illustrated in so simple a process as house-building in a pioneer community.

31. The relation of the division of labor to coöperation. — After stating that getting a good living requires, for one thing, that man coöperate effectively with his fellows, we turned to the discussion of the division of labor. This was perfectly logical, because *the coöperation of individuals is made possible by means of the division of labor.* The building of a house in a pioneer community is division of labor if we look at it primarily from the standpoint of the *individual;* it is coöperation if we look at the same operation primarily from the standpoint of the *community.* Just as " heads " and " tails " are the two sides of a coin, so " coöperation " and " division of labor " are the two sides of successful industry. In modern times, at least, coöperation and the division of labor are inseparable.

32. The Indian coöperated with his fellows relatively little. — Coöperation by means of the division of labor was practiced by the North American Indians. The women tended to specialize in domestic work and in agriculture, while the men generally confined themselves to such activities as hunting, fishing, fashioning weapons, and making war. At certain times, too, a number of individuals would coöperate in preparing the fields for planting, or in building houses and fortifications.

But when we contrast the Indian's mode of life with that of our own time, it is clear that the Indian coöperated relatively little with his fellows. The Indian family was almost entirely a self-sufficing unit, that is to say, its members themselves produced practically everything which they consumed. In contrast with the members of modern civilized nations, the Indian had few industrial relations with individuals beyond his own immediate family. An effective industrial coöperation requires the individual to be reliable, willing to learn, and capable of sustained work under discipline. So far as his industrial life was concerned, the average Indian of ancient America lacked these qualities. Moreover, war was in many cases the chief occupation of the Indian men. As a result, much of the time and energy which under more peaceful conditions might have gone into industrial coöperation, was wasted in strife and bloodshed.

33. The Indian made relatively little use of Nature. — The second important reason why the Indian got a poor living is that he made relatively little use of Nature.

Indian Carrier

An example of the laborious methods of transport among primitive peoples.

On the one hand, the Indian did not know how to fashion *natural products* into effective tools.[1] Tools, of course, are simply objects which man devises in order to help him get a better living than he could get with his bare hands. The Indian had hoes, hammers, awls, chisels, and numerous other tools, but these were relatively crude and ineffective, because they were constructed chiefly of wood, bone, or stone. The best tools are made of metals, and of metals the Indian knew practically nothing. He possessed some copper, but this was used chiefly for ornaments, rather than for tools. Certainly iron tools were undreamed of by the Indian.

On the other hand, the Indian knew little of the uses of *natural power*. It is true that he understood fire-making, the action of water currents, and the principles of plant growth. But he was profoundly ignorant of such sources of power as coal, petroleum, and electricity. *We* have harnessed natural power for the purpose of getting a comfortable living, but the Indian relied chiefly upon his own physical strength.[1] We dash across the continent in a few days because we know how to harness steam; the ancient Indian traversed the land almost entirely by foot, generally packed his burdens upon his own back, and pushed his canoe against the river's current with his own muscle.[2] The result of his inability to employ natural power effectively was that he secured a pitifully small return for hard and body-racking toil.

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[1] For a description of some of the tools and weapons which characterize primitive man, see the *Readings*, pages 17–18.

34. Summary and forecast. — The rich natural resources of North America began to yield man a living, then, at the moment that the ancestors of the American Indians drifted into the land. By getting a living we mean that it is instinctive in man to want things, that man is self-centered, and that man engages in labor for the sake of securing those things which will satisfy his wants. Things which have the power to satisfy a want are said to have utility. Man pays little attention to things which have utility, but which are so abundant as to be had without effort. On the other hand, man takes great pains to secure a supply of those things which possess both utility and scarcity. Since man considers his well-being or welfare to depend upon material objects and human services which have utility and are scarce, these two classes of things are said to constitute wealth.

The Indian provided himself with food by hunting, fishing, gathering wild vegetable products, and tilling the soil. The nature of his clothing depended upon the climate, and upon the materials which he knew how to utilize. Indian houses were of widely different types. Altogether, the Indian got a poor living, first because he did not coöperate effectively with his fellows, and second because he did not make an effective use, either of natural products or of natural power.

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[1] See, however, the cunning use which the Indian made of traps, *Readings*, pages 19–21.

[2] For a description of the methods of transportation used by the Indian, see the *Readings*, pages 21–23.

So long as North America was under the control of the Indian there was little prospect of a great industrial civilization in this country. It was not until the colonization of the country by the peoples of western Europe that civilization was in a fair way to profit from the natural wealth of North America. In the next chapter we shall trace the industrial aspects of this colonization.

Questions on the Text

1. What is the probable origin of the North American Indian?
2. Name three necessities which are of fundamental importance in the getting of a living.
3. What is meant by saying that man is "self-centered"?
4. Define labor, and explain why it is a necessary activity.
5. Why is it important to notice the manner in which the Indian got a living?
6. Define utility.
7. Into what two classes may we divide things which have utility?
8. Explain clearly the meaning and scope of the term wealth.
9. Describe the manner in which the Indian obtained food.
10. Describe the manner in which the Indian provided himself with clothing.
11. Give some examples of Indian houses.
12. Illustrate the statement that "the Indian got a poor living."
13. What two things must man do in order to secure a good living?
14. Explain clearly and in detail the nature and significance of the division of labor.
15. What are the three fundamental advantages of the division of labor?
16. What is the relation of the division of labor to coöperation?
17. To what extent did the Indian coöperate with his fellows?
18. In what two ways did the Indian fail to make an effective use of Nature?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter II.)

1. What is the significance of the Mongoloid-Red peoples? (pages 15–16.)
2. What culture traits are characteristic of these peoples? (page 16.)
3. Discuss the way in which Clark Wissler believes the New World to have been peopled. (page 16.)
4. What is the importance of the club to primitive man? (page 17.)

5. Describe the evolution of the stick. (page 17.)
6. Describe the evolution of the knife. (page 18.)
7. What is the secret of man's supremacy over the lower animals and over Nature? (pages 18–19.)
8. Describe some of the traps by means of which the Indians caught wild game. (pages 19–21.)
9. What is the significance of transportation? (page 21.)
10. To what extent did the Indian use the dog as a means of transportation? (pages 21–22.)
11. By what methods were Indian boats and canoes propelled? (pages 22–23.)
12. To what extent did the Indian depend upon animal food? (pages 23–24.)
13. To what extent did the Indian depend upon vegetal food? (pages 24–25.)
14. What is the relation of Indian culture to environment? (page 25.)
15. Give some examples of the relation between Indian culture and environment. (pages 25–27).

Topics for Investigation and Report

1. The culture of the Indians who inhabited your section of the country before its settlement by the whites.
2. Present industrial characteristics of any Indians that may still reside in your section of the country.
3. The extent of property rights among the Indians previous to the coming of the white man.
4. Trade and commerce among the Indians previous to the coming of the white man.
5. Make a list of useless things which are quite common in your community.
6. Make a list of useful things which are so abundant as to be had without effort.
7. Draw up a list of the wants which the average Indian probably experienced in the period previous to the white man's coming. Compare this list with a list of your own wants.
8. Make a list of some of the things which you would like to have, but which cannot be secured without a great deal of effort on the part of yourself or some one else.
9. Make a brief study of the extent to which the members of your community are self-sufficing.
10. Make a brief list of persons in your community who specialize in the production of a particular commodity or service.
11. Make a list of things which are included in the term wealth.

12. Make a list of the different kinds of natural power which are utilized by various industries in your community.
13. Contrast the making of tools in a primitive Indian community with the manufacture of tools in your own community.
14. Make a list of as many tools as you can think of.
15. Mental traits of the American Indian.

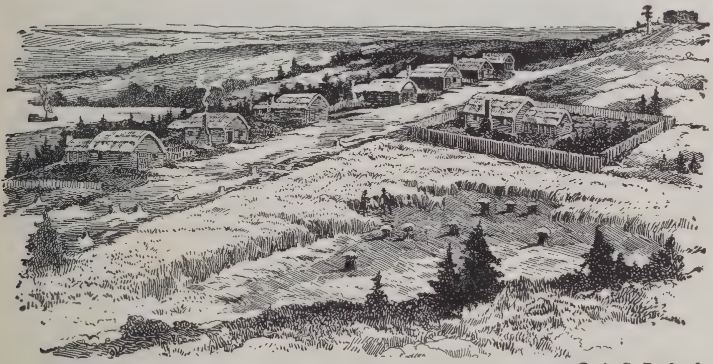
Questions for Classroom Discussion

1. It is sometimes said the different groups of American Indians differed so widely from one another that they could not possibly have had a common origin. Discuss.
2. Why is it that some people are easily satisfied, while others are continually wanting things?
3. Discuss the statement that "the more we have, the more we want."
4. What is the difference between scarcity and rarity?
5. To what extent is the steady growth of wants a blessing to mankind? To what extent may it prove injurious?
6. Is it wrong to be self-centered?
7. What is the difference between work and play?
8. Why did not the Indian domesticate the buffalo?
9. Discuss the statement that "often the Indian was discouraged from developing agriculture by the ease with which he secured animal food."
10. Discuss the statement that "civilization is the product of adversity."
11. Can you think of any disadvantages of the division of labor?
12. On the whole, has the white man's civilization injured or benefited the Indian?
13. Which statement is more nearly correct: "The Indian dominated his environment"; "the Indian was dominated by his environment"?
14. Can you explain the origin of such names as Carpenter, Mason, Baker, Miller, Weaver, and Smith?
15. What are the mental traits which are necessary to the development of a high industrial civilization?

CHAPTER III

HOW THE COLONIST GOT A LIVING

35. Europeans in the New World. — Of the European nations that laid claim to various parts of the New World, four occupy significant positions in the background of American industry. These are Spain, France, Holland, and England. England was the last in the field, but as the result of a long period of expansion and aggression this nation was in undisputed possession of the greater part of the Atlantic seaboard by 1763.



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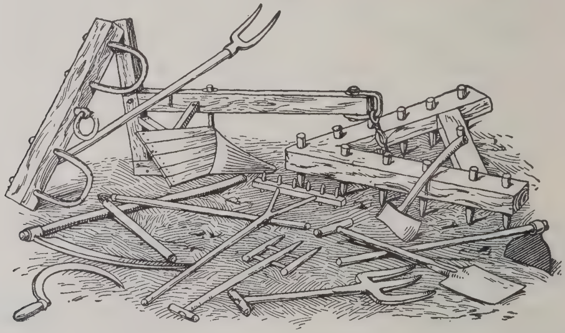
Plymouth in 1622

Once established, the English colonies grew with astonishing rapidity. Cheap land, religious freedom, and the privilege of self-government attracted settlers from all parts of northern Europe. At the close of the seventeenth century there were 260,000 English subjects in North America; in 1750 there were approximately 1,000,000; and in 1775 there were probably 3,000,000.

Although in most sections the dominant element was of

English extraction, other nationalities contributed to the population. Along the Delaware, Swedes were interspersed with the English, while in Pennsylvania there were large groups of Germans. Numerous Dutch settlers continued to live along the Hudson after New Netherland had, in 1664, passed into the hands of the English. Some of the most frugal and industrious of the settlers of Georgia and South Carolina were French Huguenots, while along the seaboard and inland the Scotch-Irish were found scatteringly.



Farming Tools in Colonial Times

Although crude, these tools were greatly superior to the agricultural implements of the primitive Indian.

36. The colonist excelled the Indian in getting a living. — With the coming of the white man, the Indian was forced into the background, and the natural resources of the country came more and more under the control of the newcomers. And now North America began to yield man a better living than ever before. The Europeans were a civilized people, whose ancestors had for centuries been accustomed to methods of work which were greatly superior to those of the primitive Indians. In the first place, the colonist coöperated with his fellows more effectively than did the Indian. In the second place, the colonist made a more effective use of Nature than did the Indian.

a. Wherein the colonist excelled the Indian

37. Industrial coöperation in colonial times. — Three factors encouraged the colonists to coöperate with one another through the process of dividing up their labor.

In the first place, various *colonial governments offered inducements* to those types of industrial specialists which were badly needed in the New World. As early as 1610 Virginia attempted to attract "carpenters, smiths, coopers, fishermen, brickmen," and other artisans. In 1640 the General Court of Massachusetts directed the magistrates to encourage boys and girls to learn to spin flax, cotton, and wool. In Pennsylvania individuals were encouraged to specialize in weaving by the offer of prizes for fine cloth. In a number of colonial communities land and money were offered to individuals who would specialize in the production of shoes, or such iron tools as plough points and scythe blades. In these and numerous other ways specialization was encouraged by government agencies, because it was realized that coöperation through the division of labor offered great advantages.

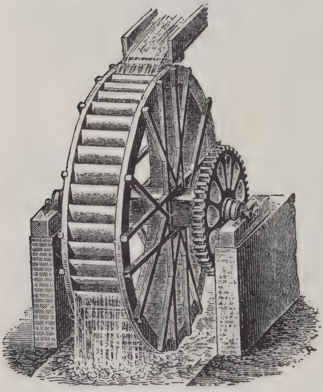
A Beaver

The abundance of these animals stimulated the manufacture of beaver hats by the colonists.

In the second place, *differences in the colonial population* encouraged the division of labor. Not only were the colonists of diverse racial stocks, but they had been accustomed, in the Old World, to quite different types of work. As the result of differences in inborn abilities and in training, some colonists became farmers, while others became hat makers, fishermen, lumbermen, ship builders, cobblers, blacksmiths, carpenters, bakers, or pedlars.

In the third place, *differences in natural resources* encouraged the division of labor in colonial times. The English colonies extended from Maine to Georgia, and consequently different groups of settlers came in contact with different kinds of soil, climate, and minerals. In New England the soil was generally poor, but harbors were good, and many raw materials for manufacturing were abundant. Hence New Englanders were encouraged to specialize in commerce and in manufacturing, rather than in farming. In the Middle colonies the soil was more fertile, so that we find a greater tendency to specialize in agriculture, although commerce and manufacturing were also important. In the South harbors were poor and conditions were otherwise unfavorable to commerce and manufacturing. But, on the other hand, the soil and climate of the South encouraged the settlers to specialize in the growing of tobacco, rice, and indigo.

The division of labor in colonial times was thus encouraged by government action, by differences among the colonists, and by differences in natural resources.



Water Wheel

How the power of running water may be used to run machinery.

38. The use of Nature in colonial times. — In addition to making a more effective use of the principle of the division of labor, the colonist excelled the Indian in the use of Nature.

In the first place, the colonist made a more effective use of *natural products*. The colonist used skins and furs to manufacture hats, shoes and clothing [1] which were superior to similar articles produced by the Indian. In the utilization of woods for the construction of dwellings, public buildings, ships, and numerous implements, the colonist again excelled the Indian. Whereas the Indian had been ignorant of the industrial use of iron, the colonist made a relatively extensive use of this important metal. The colonists employed iron in the making of nails, chains, hammers, tongs, scythes, knives, spades, and numerous other articles which were superior to any of the tools or implements which the average Indian had been able to produce.

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[1] For a description of colonial methods of manufacturing clothing, see the *Readings*, pages 33–35.

In the second place, the colonist excelled the Indian in the use of *natural power*. With the possible exception of the Eskimo, no Indian knew of any more effective method of propelling a canoe or boat through the water than by laborious paddling. The colonist, however, not only made use of the principle of the oar, but by means of the sail he took advantage of the powerful currents of the air. By means of large vessels driven by wind power, the colonist could travel great distances and could transport heavy burdens. The force of the winds was also utilized by the colonist to turn crude grist mills. The colonist likewise harnessed the power of water currents to run his mills and small factories.[1] In all of these ways, the colonist showed himself superior to the Indian.

b. The significance of exchange

39. The division of labor increases the amount of product. — We have said that the division of labor facilitates the accomplishment of heavy or complicated tasks, that it enables good use to be made of the varying abilities of men, and that it develops skill. The combined result of these advantages is that the total product of a community is much greater than it would be if its individual members were not practicing the division of labor. If every individual is a jack-of-all-trades, the efficiency of every individual tends to be relatively low, because *in some parts of his work* he is handicapped by the heaviness or complexity of the task, by his lack of preparation and training for it, and by his inability to do it a sufficient number of times to acquire skill at it. But if every individual does that type of work for which he is best fitted, and *only* that type of work, he tends *always* to be working at maximum efficiency. Where a number of individuals are working with low efficiency *part* of the time the product of their combined efforts is relatively small; where each of them is *always* working at maximum efficiency, the product is relatively large.

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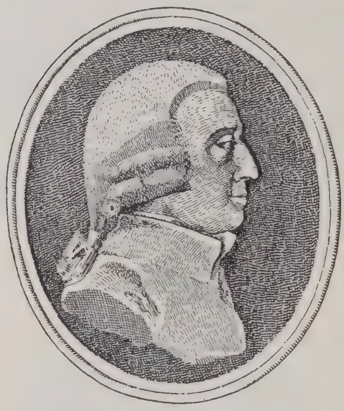
[1] For a description of wind and water mills in colonial days, see the *Readings*, pages 36–37.

40. Why exchange and the division of labor are generally found together. — The product of the specialist, then, is greater than that of the jack-of-all-trades. The man who is fitted to make shoes, and who makes shoes and nothing but shoes day in and day out, finds that he can produce a relatively large number of shoes. *But what of it?* To satisfy his own personal wants, he needs food, clothing, tools, books, furniture, and innumerable other goods. And if in his concentration upon shoe-making, he produces nothing but shoes, is he not injuring instead of benefiting himself? On the one hand, he needs innumerable commodities which he has neglected to provide for himself. On the other hand, he has many more shoes than he himself could use within a reasonable length of time.



ADAM SMITH (1723–1790)

This Scottish philosopher is known as the "father of modern economics." One of the things for which he is celebrated is his analysis of the division of labor and its relation to exchange.

This situation brings us to the principle of exchange, which is so closely related to the principle of the division of labor as almost always to be found associated with it. *The division of labor in modern industry results in great advantages, but only if specialists can exchange their surplus products.* To illustrate this by a very simple case, suppose that I am a shoe-maker in a small community in colonial New England. I produce shoes and nothing but shoes, although I have no personal use for all of these shoes, and although I need, say, corn and a beaver hat. Under such circumstances I can specialize in shoemaking only because experience has taught me the possibilities and advantages of exchange with my neighbors. Just as I have surplus shoes, so a near-by farmer has surplus corn, and a near-by hatter has surplus hats. Looking at the situation primarily from my standpoint, I need some of the surplus corn of the farmer and one of the surplus hats of the hatter; in turn both the farmer and the hatter need some of my surplus shoes.

Under such circumstances, exchange takes place between myself and each of my two neighbors. I exchange some of my surplus shoes for the farmer's corn and other of my surplus shoes for one of the hatter's surplus hats. By this means each of us is enabled to secure the advantages of the division of labor. Provided there are, in the community, enough customers for the surplus product of each of us, each of us works with maximum efficiency. The reason for this is that it is now profitable for each of us to specialize in that type of work for which, under the circumstances, each is best fitted. Our surplus product we are enabled to dispose of in exchange for goods which we need, but which we find it impossible or unadvisable to produce for ourselves.

41. Not simply an advantage, but the greatest advantage. — From the above discussion it follows that every alert and ambitious individual will take advantage of the division of labor and the opportunity of exchange to specialize in one particular type of work. Now it is to be noted here that no sensible person will be content to specialize in *any* type of work for which he is fitted, but rather in that type of work for which he is *best* fitted. In other words, the individual will tend to devote himself to that type of work in which he has, not merely an advantage, but a *greater* advantage than he has in any other type of work. Two examples will clarify this important point.

Example 1. — Suppose that I am a lawyer, but that I can operate a typewriter more rapidly and more efficiently than can any typist I have ever been able to hire. Instead of typing my own letters and taking that much time from my law practice, I hire a typist and devote myself exclusively to my legal affairs. This is wise, for by this arrangement I gain more than I would if I acted as my own typist. The typist charges me, say, $.50 an hour; if I did her work, I should be utilizing some of my time for the sake of $.50 an hour. But as a lawyer my time is worth, say, $3.00 an hour. To lose the opportunity to earn $3.00 in order to save $.50 is stupid. Hence I specialize in law practice, because it is in law practice that I have the *greatest* advantage.

Example 2. — Suppose that I am a truck gardener, engaged in raising high-priced vegetables and fruits on valuable land near a large city. I keep a cow, and I have good reason to believe that I could use part of my land and part of my time to raise cow feed at a cost of $10 a ton. But instead of thus taking part of my time and my land away from the business of truck gardening, I buy all of my cow feed, at the rate of $18 a ton. Although I pay $8 more for a ton of this feed than it would cost me to raise it, I gain by the arrangement. Why? Because all of my time and all of my land are thereby left free for the raising of vegetables and fruits which I sell to my city customers for fancy prices. I make so much money from raising truck that I cannot afford to employ my time and land at anything so *relatively* unprofitable as raising cow feed.

Wherever the division of labor and exchange are developed, therefore, the alert and ambitious individual will tend to specialize in that type of work at which he has not merely an advantage, but the *greatest* advantage.[1]

c. Exchange in colonial times

42. In some cases exchange in colonial times was a simple matter. — In some cases the exchange of goods in colonial times was effected very easily. Let us go back to the example in which it was assumed that I was a shoe-maker in a small New England community. The farmer from whom I desire corn, and the hatter from whom I desire a beaver hat, both live very near me. When I wish to exchange surplus shoes for surplus corn on the one hand, and a surplus hat on the other, I may simply walk over to my two neighbors with the desired size of shoes on my back, and carry back the corn and hat. Perhaps I take a wheel-barrow or a horse and cart to help me carry the corn, but in any case the problem of *transportation* bothers me very little.

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[1] The principle which has been explained in this section is sometimes called the "doctrine of comparative advantage," and is spoken of primarily in connection with certain aspects of international trade. However, this principle has a much wider scope, and for this reason it is treated at this point.

AN OLD TIME STAGE-COACH

In exchanging shoes for corn or clothing, I may engage in *barter* with my two neighbors, that is to say, I *exchange my goods directly for their goods.* I may give a pair of shoes for three bushels of corn, and another pair of shoes for a beaver hat. This method of exchange may be awkward if, for example, the hatter and I agree that a pair of shoes is worth, say, two thirds of a beaver hat. But since we are neighbors and friends, we may settle this problem by my taking the hat for the shoes, and agreeing to give the hatter credit for a third of a hat in some future transaction between us.

43. Why the colonist developed means of transportation. — But if there had existed in Colonial America no more effective means of exchange than those mentioned in the preceding section, the division of labor would have been markedly restricted.

To continue our example, I could profitably make only as many surplus shoes as I could dispose of among my immediate neighbors. Since the number of these neighbors is relatively small, it might be that I would be disposing of so few shoes that it would not pay me to employ all of my time in shoe-making. For example, I might have to spend two or three days a week in farming, in order to employ all of my time. But since it is assumed that I am more skilful at shoe-making than at any other occupation, there is a loss to the community when I am obliged to abandon that type of work at which I am most efficient. The same reasoning applies to all other specialists in the community. Thus the lack of transportation facilities may keep a community from securing the full benefit of the principle of the division of labor.[1]

It was partly in the effort to overcome this difficulty that transportation was developed by the colonist. Wagon roads were constructed to facilitate travel and the transportation of goods. The colonists constructed vessels which could carry goods up and down such rivers as the Connecticut, the Hudson and the Delaware, as well as along the Atlantic seaboard and to foreign countries. By these means specialists were enabled to reach more customers than would otherwise have been possible. More customers meant that it was advantageous to produce more of their speciality. Hence the individual was encouraged to devote all of his time and attention to the type of work for which he was best fitted.

A CRUDE MEANS OF TRANSPORT

Rolling tobacco to the wharf in colonial Virginia.

44. The difficulties of barter. — Let us notice, now, that the division of labor in colonial times would have been greatly restricted if the colonist had been obliged to depend entirely upon barter in exchanging goods.

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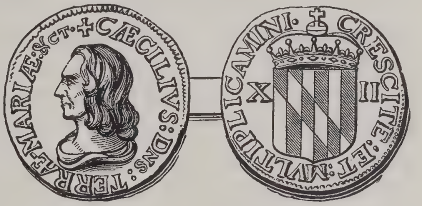
[1] In this connection an important individual in early America was the wandering pedlar. See the *Readings*, pages 37–39.

The difficulty with barter may be illustrated by the case of a man who wishes to exchange a horse for a cow. The owner of the horse might have great difficulty in finding some one who had a surplus cow, and who *also* desired a horse. Even though the owner of the cow liked the horse in question, and even though the owner of the horse were pleased with the cow, it might be impossible to effect an exchange. The two men might agree that the cow was worth a horse and a third, or a horse and a half, in which case the transaction would be blocked. Unless both men agreed that the horse was precisely worth the cow, there could be no exchange.

45. The nature of money. — The colonists brought from the Old World the habit of supplementing barter by making an extensive use of money. *Money may be defined as anything that passes freely from hand to hand as a medium of exchange.* Any staple commodity may serve as money, as for example, bright shells, tobacco, or cattle. But ultimately every civilized people has settled upon metals as the best material for money. Gold and silver are especially well suited to be used as money, because they are portable, durable, malleable, uniform in quality, relatively free from rust, capable of being minutely divided, and are easily recognized. In modern times gold, silver, nickel, and copper coins have been the most familiar forms, though paper currency is also an important form of money.[1]



AN EXAMPLE OF COLONIAL MONEY

A Maryland shilling.

46. How money facilitates the exchange of goods. — There is nothing mysterious about money. It is simply a device which saves time in exchange, and which guarantees accuracy in measuring the relative values of goods. Let us illustrate this chief function of money by seeing how money might make it easier for the owner of a horse to exchange the animal for a cow.

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[1] The chief kinds of money now in use in the United States are enumerated on page 195.

If money is in use in the community, it will not be necessary for the owner of the horse to lead his animal about until he finds a man with a cow. Instead, he can sell his horse to anyone who will give him a satisfactory amount of money for it. There will be no difficulty in making change, for money can be so minutely divided as to measure the value of an article rather exactly. The seller of the horse does not fear that he could not use the money received, for money is generally accepted in exchange for other goods. There will be no misunderstanding about the weight and quality of the money, because the government stamps metallic money into coins of a guaranteed weight and quality. This saves people the trouble of weighing and testing metallic money every time a sale is made.

The man who has sold the horse now offers the money to the owner of the cow. Again, the fact that money is finely divisible allows an accurate money measure of the value of the cow. The owner of the cow, if he is satisfied with the amount of money offered him, does not hesitate to accept it, since he, too, realizes that the government guarantees its authenticity, and that he can use money to purchase whatever he likes.

47. Money is a means to an end. — It is very important for the student to realize that in such transactions as that just described, money is a means to an end. It is a tool which enables individuals to get what they want in exchange for what they have. One man had a horse and wanted a cow; he now has a cow but no horse. He achieved his *end* by an exchange of horse for cow, effected by *means* of money as a go-between.

But suppose that the owner of the horse sold the animal and deposited the money, say $100, in a bank. Is money still a means to an end? Yes. The banking of the money is a *half-way stage* in exchange. Money is used chiefly to buy goods, and it is the goods which money will buy, rather than money itself, which the individual wants. Ultimately, we may suppose, the man who has sold the horse will draw his $100 out of the bank and buy something. Suppose that he buys clothing, or a plough, or a cow. The process of exchange is now complete. He had a horse; he now has some other article or commodity, but no horse. The exchange was effected by means of money. The intervention of time only *delayed* the completion of the process of exchange. *Wherever buying and selling are going on, the exchange of goods is in process, and the intervention of money and time should not prevent the student from seeing that this is so.*

48. Summary and forecast. — We have endeavored to show that the colonist excelled the Indian in the getting of a living. Fundamentally, this superiority of the colonist was due to his more effective coöperation with his fellows on the one hand, and to his more effective use of Nature on the other hand. We saw that the development of the principle of the division of labor was accompanied by an improvement of the facilities for exchange, since the division of labor results in great advantages only if specialists can exchange their surplus products. Transportation and money are invaluable aids in exchange, and in the development of both of these the colonist excelled the Indian.

But though the colonist excelled the Indian in the getting of a living, the industrial activities of the colonist were crude and ineffective in comparison with those of present-day Americans. In colonial times the division of labor was much less developed than now, indeed, most colonial families were practically self-sufficing. The use of coal and the harnessing of steam were unknown. There were no railroads, no telephone, no telegraph. Compared with American life in the twentieth century colonial life was hard and rude.[1] How the early Americans made rapid progress toward the efficient industrial methods of our own time is developed in the next chapter.

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[1] For the hardships endured by the colonial farmer, see the *Readings* pages 31–33.

Questions on the Text

1. Describe, briefly, the growth of the English colonies in America.
2. In what two ways did the colonist excel the Indian in getting a living?
3. To what extent did colonial governments encourage the division of labor?
4. What other factors encouraged the colonists to coöperate with one another by dividing up their labor?
5. Contrast the colonist and the Indian with respect to the use of natural products.
6. Contrast the colonist and the Indian with respect to the use of natural power.
7. Explain clearly how the division of labor increases the amount of product.
8. Explain in detail the relation between the division of labor and exchange.
9. Explain clearly and in detail what is meant by saying that the industrial specialist tends to specialize in that type of work at which he has, not merely an advantage, but the greatest advantage.
10. Give an example of exchange in colonial times, in which transportation and money are of very little importance.
11. Name an important reason why the colonists developed means of transportation.
12. What are the chief difficulties of barter?
13. Describe the nature of money.
14. Give an illustration of the manner in which money facilitates the exchange of goods.
15. Show that the intervention of money and time does not change the fundamental nature of exchange.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter III.)

1. Describe the landing and early struggles of the Englishmen who settled Jamestown in 1607. (pages 29–30.)
2. Describe the attempts of the settlers to trade with the Indians. (pages 30–31.)
3. What is meant by saying that the fundamentals of colonial agriculture were everywhere the same? (page 31.)
4. Describe the preparation of the soil, and the planting of crops, in New Netherland. (pages 31–32.)

5. What sort of shelters were utilized by the settlers in New Netherland? (pages 32–33.)
6. Describe the growing of flax in colonial times. (pages 33–34.)
7. What is meant by "breaking" and "swingling" the flax? (page 34.)
8. What part was played in the preparation of flax fiber by the mother and her daughters? (pages 34–35.)
9. Describe the spinning of flax in colonial times. (page 35.)
10. Comment upon the uses to which wind power was put in colonial times. (pages 36–37).
11. Comment upon the uses to which water power was put in colonial times. (page 37.)
12. How did the pedlar overcome the general lack of transportation facilities? (page 38.)
13. Describe the life of the wandering pedlar in early times. (pages 38–39.)
14. Describe industrial conditions in New England just prior to the American Revolution. (page 40.)
15. Describe the trade of New York during the same period. (page 41.)

Topics for Investigation and Report

1. Industrial aspects of the Spanish colonization of the New World.
2. Industrial aspects of the French colonization of the New World.
3. Industrial aspects of the Dutch colonization of the New World.
4. Industrial aspects of the English colonization of the New World.
5. Nationalities contributing to the population of colonial North America.
6. British restrictions upon American industry during the colonial period.
7. Industrial differences between the Northern, Middle, and Southern colonies.
8. Domesticated animals in colonial times.
9. Forms of natural power which were utilized by the American colonist.
10. Illustrate, by reference to conditions in your own community, the principle that an industrial specialist will tend to devote himself to that type of work in which he has, not merely an advantage, but the greatest advantage.
11. Transportation in colonial times.
12. Commodities which have been used as money in different countries of the world, and at different times.
13. The issue of paper money by colonial governments.

14. Trade rivalry among the American colonies.
15. Life on a colonial farm contrasted with life on a present-day American farm.

Questions for Classroom Discussion

1. Why was the colonization of the Atlantic seaboard dominated by England, rather than by some other European power?
2. To what extent is it possible to attribute the characteristics of the present-day American people to particular nationalities?
3. What is the relation of democratic government to industrial progress?
4. Discuss the statement that "the function of government is to harmonize the interests of the individual with the interests of the community."
5. Discuss the phrase, "jack-of-all-trades, master of none."
6. Discuss the statement that "the division of labor is both a cause and an effect of exchange."
7. Formerly it was sometimes said that the exchange of products benefits no one, for if one article is "worth" the other, neither party to the exchange can gain. Discuss.
8. Formerly, too, it was sometimes said that both parties to an exchange could not gain, for if one person profited from the transaction it could only be at the loss of the other party. Discuss.
9. Examples of barter in your community at the present time. Why is money not used in these cases?
10. Do you think you could explain the statement that "money is a means to an end" to some one who had never studied economics?
11. Why do you suppose that the United States Government stamps a design on *both* sides of all coins issued at the Federal mints?
12. Which is more dependent upon Nature, civilized man or the savage?
13. Discuss the statement that "the causes of the American Revolution were primarily economic, rather than political."
14. Do you see any relation between the division of labor and the use of machinery?
15. On the basis of your present knowledge, what do you understand by the term "Industrial Revolution"?

CHAPTER IV

THE INDUSTRIAL REVOLUTION

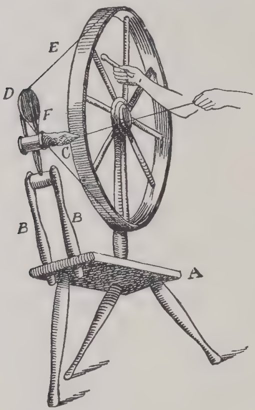
49. Getting a living in early England. — The story of how the American people effected a marked improvement in the getting of a living begins in England. Accordingly we shall have to notice, briefly, certain phases of English industrial history.

Up to about the middle of the eighteenth century, the masses of English people, in common with the people of other countries, got a very poor living. They were roughly at the industrial stage which we occupied in the earlier part of the colonial period, indeed the Americans of that period imitated and adapted the industrial methods of the mother country.

During this period Englishmen made a wide use of hammers, saws, chisels, awls, spades, ploughs, wheelbarrows, and other simple tools, but the efficient machines and engines of our time were unknown. Most common necessities were made in the home and for purely family use. Shoes, clothing, tools, furniture and other articles were produced primarily by laborious hand labor, instead of by complicated machinery as now. Small communities, and even families, tended to be self-sufficing, in that they themselves produced most of the goods which they consumed. Both the division of labor and exchange were discouraged by the lack of railroads, and by the crudeness and expensiveness of transportation by pack horse, wagon, or sailing vessel.

In comparison with present-day methods, there was in early England little industrial coöperation, little effective use of Nature, little suspicion that men were getting a very poor living, in spite of hard work engaged in for long hours.

50. An example of the backwardness of industry in early England. — The general backwardness of English industry previous to 1750 may be illustrated by the example of cotton manufacture. Until after the middle of the eighteenth century, the English people manufactured cotton cloth in the same rude way as had been employed since the Middle Ages. First of all, the cotton fibers were cleaned and combed by hand. Then these had to be twisted into yarn or thread. This was done as follows. The twisted end of the cotton fibers was attached to a rounded stick called a *spindle*. This spindle was set upon a frame, and was connected, by means of a belt, with a large wheel. By means of pressing the foot on a treadle, the spinner caused this wheel to revolve, and this turned the spindle. As the spindle revolved the yarn wound up on it. This device was known as the *spinning wheel*.



A SPINNING WHEEL

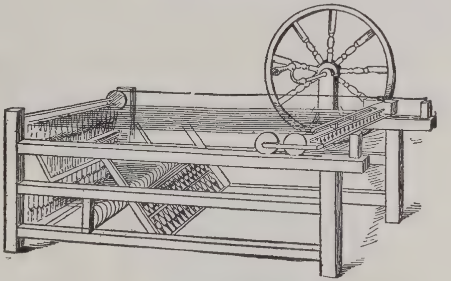
A band or cord (*E*) connected the large wheel with the small wheel (*D*). Another cord (*F*) connected the small wheel with the grooved pulley, or wharve, on the spindle (*C*). The revolutions of the large wheel turned the small wheel very rapidly, thus communicating motion to the spindle through the grooved pulley.

After the cotton had thus been turned into yarn, it had to be woven into cloth. Weaving was done on the hand *loom*, which was a wooden frame to which vertical threads were attached. Horizontal threads were then woven in and out between the vertical threads by means of an enlarged needle or *shuttle*. By this means the yarn was made into cloth, after which the cloth could be cut, measured, and sewn to form garments.

In all of these operations, it is to be noted, human labor was the dominant form of power.

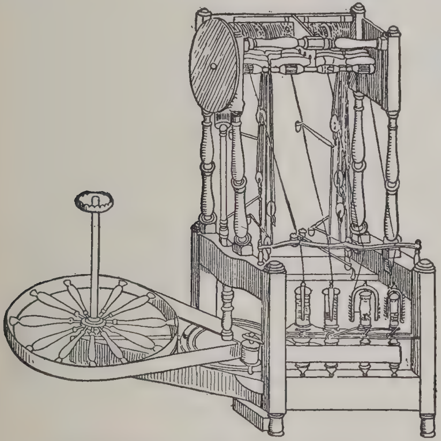
a. The Industrial Revolution in England

51. The improvement of cotton manufacture. — From the above illustration it will be apparent that *spinning* and *weaving* were two distinct sets of operations, but that both were essential to cotton manufacture. In order to facilitate the process of making cloth from cotton, the women of the family tended to specialize in spinning, while the men did the weaving.



Hargreaves's "Spinning Jenny"

Now it happened that in the earlier part of the eighteenth century the improvement of the *weaver's* shuttle enabled him to double his speed in weaving yarn into cloth. As a result the spinners were unable to provide yarn fast enough to keep the weavers busy. This set people to thinking upon methods of increasing the speed and efficiency of the *spinners*. At length, in 1765, a workman by the name of James Hargreaves invented a machine called a "spinning jenny,"[1] which ran on the principle of the spinning wheel, but which carried a number of spindles instead of one. This meant that whereas the old type of spinning wheel could spin only one thread at a time, the new device could



Arkwright's Spinning Machine

The entire mechanism was propelled by means of the wheel at the left.

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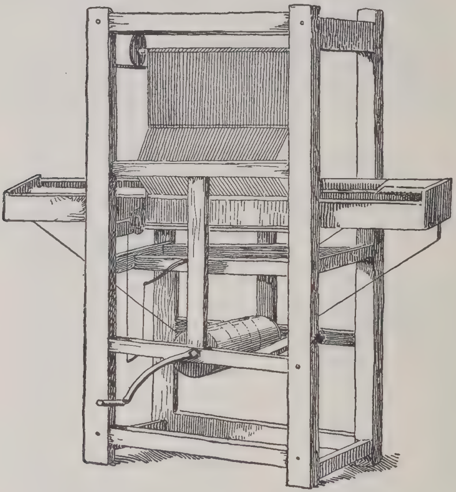
[1] Hargreaves named his machine the "jenny" in honor of his wife, whose name was Jenny.

spin a number of threads at the same time. Within the inventor's own lifetime, the jenny was so improved that it spun eighty threads at the same time, and hence did the work of eighty spinning wheels.

Then followed a number of inventions which further improved the process of spinning cotton fibers into thread. About the time that Hargreaves invented his jenny, an Englishman by the name of Richard Arkwright invented a machine which was called the "water frame," because it was run by water power. This machine excelled all previously known devices for making the thread hard and strong, and hence it was welcomed by the weavers. In 1779 Samuel Crompton invented a machine called a "mule," which combined the essential features of Hargreaves' jenny and Arkwright's water frame.

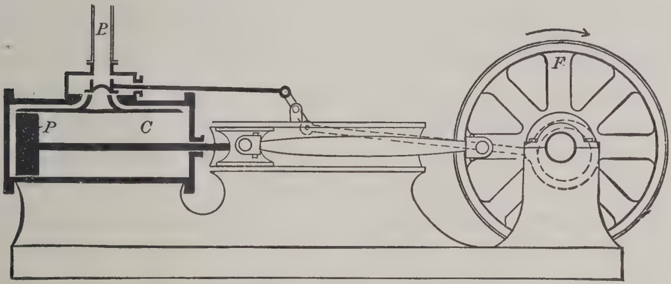


Cartwright's First Power Loom

The shuttle was propelled mechanically through the long trough-shaped form extending out at the sides.

These three inventions in the *spinning* end of cotton manufacture not only enabled the spinners to produce yarn enough for the weavers, but soon placed the spinners in a position to turn out *more* yarn than the weavers could use. Men now turned their attention to improving the process of *weaving*. A great advance in this direction was effected by Edward Cartwright, who constructed a loom with an automatic shuttle operated by water power. This power-driven shuttle worked much more rapidly than the shuttle of the most expert hand weaver. Later this loom was so improved that a single operator could produce more cloth than two hundred men could weave on the old-fashioned hand loom.

52. The harnessing of steam. — Hargreaves' jenny had at first been operated by human hands, and horses had worked Arkwright's original machine. Soon, however, the new cotton manufacturing machinery was turned over to water power. Numerous mills and small factories were located along the rivers and smaller streams so that the force of the current could be used to turn the machinery.



Essential Parts of a Steam Engine

The diagram shows the piston (*P*) at the beginning of the forward stroke, steam being admitted through the opening back of the piston. The steam comes into the cylinder (*C*) from a steam-pipe (*B*) leading from the boiler. The pressure of the expanding steam forces the piston forward, turning the fly wheel (*F*). When the piston reaches the front end of the cylinder, steam is admitted at the front end of the cylinder, and the expansion of the steam forces the piston back in the cylinder, again moving the fly wheel.

Then came steam! Gradually Englishmen had been learning that when coal is used to heat water to the boiling point the water changes into vapor or steam. This steam tends to expand, and in expanding it exerts pressure. In 1769 James Watt, a Scotchman, patented a device by means of which expanding steam was made to push pistons and turn wheels. Later this steam engine was used to run small spinning and weaving machines, and after 1785 it was used in textile factories, fundamentally as it is used to-day. Steam was also applied to the problem of transportation, and a primitive form of steam railroad was the result. Gradually the railroad became so efficient that it was an important means of carrying raw materials to the factories, food to the manufacturing towns, and manufactured products to distant markets.

53. Widening scope of power machinery. — As has been pointed out, the application of power machinery came first in cotton manufacture. Gradually, however, the principle of power machinery found its way into other phases of industry. The manufacture of woolen cloth, the mining of coal, the smelting of iron, these and numerous other industrial activities were stimulated by the use of machinery run by steam. One of Nature's most powerful forces had been harnessed, and it was so much easier to do many important kinds of work, that a revolution had been effected in industry. Indeed, the gradual change from hand to machine methods which took place in England in the second half of the eighteenth century is known in history as the English *Industrial Revolution.*

b. The Industrial Revolution in the United States

54. Power machinery introduced into the United States.[1] — The invention and improvement of power machinery in England gave that country a decided advantage in manufacturing. Wishing to maintain this advantage, the English government strove to prevent people in other countries, both from buying any of the improved machines, and from learning how they were made.

In 1789, however, an Englishman by the name of Samuel Slater came to America, and from his memory of the English spinning machinery, this man directed the construction of similar machinery at Pawtucket, Rhode Island.[2] After 1800 progress in American manufacturing was steady, and the principle of machinery driven, not by human power, but by natural power, was applied to more and more industries. By 1815 the Industrial Revolution in the United States was fairly under way. Lowell, Lawrence, Holyoke, and other New England manufacturing towns were growing rapidly. More and more of the machine-made products of American factories were finding their way along the coast, into the interior, and even to foreign countries.

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[1] For a description of American industry on the verge of the Industrial Revolution, see the *Readings*, pages 49–51.

[2] For an account of Slater's work in the United States, see the *Readings*, pages 51–53.

55. The significance of the Industrial Revolution. — During the last century and a half American industry has developed so rapidly, and in so many directions at the same time, that it is difficult to grasp the full significance of the Industrial Revolution in this country. But our ideas will be clarified if we bear three facts in mind:

First, the character of man's living depends, as we have already seen, upon the extent to which he coöperates with his fellows by means of the division of labor, and upon the extent to which he makes use of Nature.

Second, the fundamental principle underlying the Industrial Revolution is the substitution of natural power for human power. People in all ages have made some use of natural power, but it was only with the harnessing of steam that this use became effective.

Third, the effect of the Industrial Revolution upon the getting of a living is fundamentally the effect of the use of power machinery upon the division of labor on the one hand, and upon the use of Nature on the other.

Let us now inquire into the effect of power machinery upon the division of labor and upon the use of Nature.

c. Power machinery and the division of labor

56. Power machinery increased the amount of product. — Power machinery increased the amount of product, as may be illustrated by the case of calico printing. By calico printing we mean the process of printing or stamping figured designs on a grade of cotton cloth known as calico.

Previous to the Industrial Revolution in England, calico cloth was printed by hand. The surface of a small block of wood was carved with the pattern which it was desired to stamp upon the cloth. A workman then applied coloring matter to this block, and stamped the design upon a small part of the cloth. The process was repeated until the whole surface of the cloth was covered with the design. If the design required the use of more than one color, the procedure was as follows: All of the cloth was first stamped with that part of the design which consisted in a single color. After the coloring matter had dried, the cloth was stamped with that part of the design which consisted of the second color. For every color used, there was a separate block and a separate stamping.

In 1785 a Scotchman by the name of Bell patented a device for printing calico by means of power machinery. According to this method, a copper cylinder several feet in length and three or four inches in diameter was engraved with a pattern round its whole circumference and from end to end. As this cylinder was revolved by power machinery, the lower part of the cylinder passed through the coloring matter, and then over the cloth to be stamped.

The perfection of this device effected a revolution in calico printing. For one thing, the amount of product was greatly increased by this substitution of natural power for purely human power. One of the cylinder machines, attended by a man and a boy, was soon able to turn out as much stamped calico as could formerly be turned out by two hundred laborers printing by means of hand blocks.

57. Power machinery improved the product. — To continue the example of calico printing, the new cylinder process not only increased the amount of product, but it improved the quality of the product. So long as the cloth was printed by means of wooden blocks, delicate designs could not be used, because of the difficulty of carving thin ridges into the surface of the block. However, the most delicate patterns could be engraved into the surface of the copper cylinder, and as a result the product of the cylinder press was artistically superior to that produced by hand methods. Also, a piece of cloth stamped by the hand block method was often irregular in design, because of the inability of the workman to make the pattern left by a particular block fit in exactly with the patterns left by previous stampings. Cylinder printing, however, secured an even and harmonious design because the whole width of the cloth could be printed at one time. Finally, in cylinder printing the cloth could be stretched tight and smooth while it was being stamped, whereas the hand stamper had often been unable to hold the cloth firmly enough to insure a perfect imprint.

58. Power machinery lowered the cost of production. — The improvement of calico printing resulted, too, in a greatly lowered cost of production. Whereas by hand methods the printing of each color in the design had required a separate handling of the cloth, Bell's machine was able to stamp a six-colored design upon the cloth with a single turn of the cylinder. This, together with the great speed of the machinery, and the small number of human attendants needed by the cylinder process, greatly lowered the cost of producing a yard of printed calico cloth.

In a similar way, power machinery increased the amount, improved the quality, and lowered the cost, of products other than calico cloth. The case of calico printing has been used merely as a concrete example of these effects of power machinery.

59. Power machinery and the market for goods. — With the progress of the Industrial Revolution, the market for numerous goods increased. The increase in the *amount* of the product meant that there were more goods available for use. The improvement in the *quality* of the goods meant that consumers were more likely to desire the commodity. The *decreased cost* of producing these goods also encouraged consumers to buy.

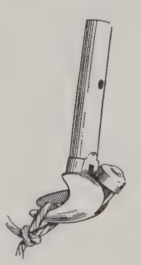
Fortunately these improvements in manufacturing were accompanied by improvements in transportation, so that the product of the factories could be carried with relative speed and cheapness to distant customers. The improvement of highways, the building of canals, and the growing efficiency of the railroad, all combined to connect the manufacturer with more and more customers. Without such improved means of transportation it would have done the manufacturer little good to increase his product, improve its quality, and lower the cost of production. Happily, however, he gained from these developments because transportation widened the market for his products.

60. Power machinery furthered the division of labor between individuals. — We are now in a position to see precisely what was the effect of power machinery upon the division of labor. The student will remember that an extensive division of labor is profitable only if an extensive market is available. We have just seen that the greater use of natural power widened the market for goods. Therefore, the use of power machinery rendered profitable a more extensive division of labor. The use of power machinery furthered the division of labor in two ways.

In the first place, power machinery encouraged a more extensive division of labor *between individuals*. Since the market for goods had expanded sufficiently to absorb a relatively great amount of product, it was now profitable for a considerable number of workmen to divide up among themselves operations formerly carried on by one or a few men. The result was greatly to increase the total product. Because of the development of steam transportation and other applications of natural power, this increased product could be effectively exchanged for the surplus products of other specialists.

61. Power machinery furthered the division of labor between individuals and machines. — In the second place, the use of power machinery furthered the division of labor *between individuals and machines*.

No machine has intelligence, but it does well at automatic operations. All sorts of processes, indeed, can be carried on by machinery, if only those processes call for repetition. By experiment men have found that a complex operation, such as the making of a chair, can be divided into a number of operations, and that the simplest of these can be performed by machinery. This has left men free to give their attention to tasks which are relatively complex, and which require intelligence and judgment. In an important sense the progress of the Industrial Revolution is the story of how man has turned over more and more industrial operations to machinery, rather than himself performing them by hand. To-day numerous specialists are distinguished, not by the type of *hand labor* which they perform, but by the type of *machine* which they operate.



APPLEBY'S KNOTTER

A device which does the work of human fingers. Attachment on a grain binder, which automatically ties the binding twine about each bundle of grain.

d. Power machinery and the use of Nature

62. The development of raw materials. — The growing use of power machinery had a marked effect upon man's use of natural products. Such natural resources as land, coal, iron, and timber we call " raw materials," because they are the raw, crude stuff out of which we make goods which will more effectively satisfy man's wants. One of the most obvious effects of the Industrial Revolution was to quicken and stimulate the manufacturing industries. As a result, the progress of the Industrial Revolution was accompanied by the rapid development of our natural resources.

Coal mines were discovered and opened up in order to get the fuel with which to heat water and form steam. Our iron mines were exploited in order to secure the ore to make tools, engines, and machines. The increased market for cotton and woolen textiles stimulated the growing of cotton and the rearing of sheep. The forests, too, were subjected to greater and greater demands in order to supply the raw material for dwellings, factories, and the innumerable wood products which began to be turned out by machinery. With the progress of the Industrial Revolution, indeed, all of our important natural resources were in greater and greater demand.

63. The Industrial Revolution and the use of natural power. — We have been discussing the effect of the principle of power machinery upon the use of *natural products*. It will be remembered, however, that the use of Nature involves *natural power* as well as *natural products*.

Little need be said here concerning the effect of the Industrial Revolution upon the use of *natural power*, since we have seen that the employment of natural power is the very basis of that Revolution. After James Watt and later inventors had perfected the steam engine, the great dominating power in industry came to be steam. Pumps, engines, machines, railways, ships, all these were at length made to move by steam.

Man became an industrial director, using his great intelligence to control and direct natural power. The significance of this statement is profound. Natural power is infinitely greater than is human power. Natural power saves the wear and tear on human muscles. Natural power is tireless, whereas men are easily fatigued and worn out. Natural power can be made to work uniformly and consistently, whereas men often work in an erratic and irregular fashion. No wonder that man has greatly improved his living by harnessing natural power.

64. Summary and forecast. — The Industrial Revolution, then, is one of the most important developments in the history of the world. Until after the middle of the eighteenth century, industrial methods were relatively crude and ineffective. Then the English, by a series of remarkable inventions, applied the principle of power machinery, first to the manufacture of cotton textiles, and later to other industries. The principle of power machinery spread to the United States, and resulted here, as in England, in a marked industrial development. The use of power machinery increased, improved, and cheapened product, while the improvement of transportation facilities allowed this product to be sold to more and more customers. Power machinery furthered the division of labor, and necessitated the greater development of raw materials.

As the result of these developments, the Americans of the early nineteenth century were enabled markedly to improve the quality of their living. However, the Industrial Revolution was not a sudden over-turning, but rather a long and gradual development.[1] The completion of the Industrial Revolution in the United States was to be delayed until the modern industrial methods of the Atlantic Coast had spread into the Great West beyond the Appalachians. In the next chapter, accordingly, we shall discuss the conquest of the West.

Questions on the Text

1. Describe, briefly, the process of getting a living in early England.
2. Describe the manufacture of cotton textiles in early England.
3. Explain carefully how cotton manufacture was improved by the inventions of Hargreaves, Arkwright, Crompton, and Cartwright.
4. Describe the harnessing of steam in eighteenth century England.
5. Describe the introduction of power machinery into the United States.
6. What three facts must be borne in mind in considering the significance of the Industrial Revolution?
7. Compare Bell's device for printing calico with the device formerly used for this purpose.
8. What was the effect of the new method of printing calico upon the amount of product?
9. What was the effect of the new method upon the quality of the product?
10. What was the effect of the new method upon the cost of production?
11. What is the relation of power machinery to the market for goods?
12. What was the effect of power machinery upon the division of labor between individuals?
13. Explain the nature of the division of labor between men and machines.

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[1] For the condition of American manufactures about 1810, see an extract from Gallatin's *Report*, reprinted in the *Readings*, pages 53-55.

14. Describe the development of raw materials which was necessitated by the Industrial Revolution.
15. In what ways is natural power superior to human power?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter IV.)

1. What, according to Adam Smith, is the origin of the principle of the division of labor? (page 43.)
2. Is this principle known among the lower animals? Explain. (pages 43–44.)
3. What is meant by saying that " man must appeal to the self-interest of his fellows, and not to their benevolence "? (page 44.)
4. Give some examples of how the division of labor may arise. (pages 44–45.)
5. What are the two phases of the division of labor? (page 45.)
6. Define energy. Define force. (page 46.)
7. What is the nature and function of the machine? (page 46.)
8. Name six simple machines. (page 46.)
9. What part did John Kay play in the Industrial Revolution? (pages 47–48.)
10. What did Tench Coxe have to say concerning the possibilities of manufacturing by means of wind and water machines? (page 50.)
11. What did this observer of industrial affairs have to say concerning immigration? (page 51.)
12. What is the significance in American industrial history of Robert and Alexander Barr? (pages 51–52.)
13. Describe the work of Samuel Slater. (pages 52–53.)
14. What did Gallatin's *Report* have to say concerning textile manufactures in the United States in the early part of the nineteenth century? (page 54.)
15. What factors, according to Gallatin's *Report*, were retarding American manufactures during this period? (page 55.)

Topics for Investigation and Report

1. A detailed description of cotton spinning previous to the Industrial Revolution.
2. A detailed description of weaving cotton yarn or thread into cloth previous to the Industrial Revolution.
3. The process of generating and harnessing steam.
4. The life and work of James Watt.

5. The life and work of Samuel Slater.
6. The use of water power in early New England.
7. The life and work of Eli Whitney.
8. Some examples of commodities which are to-day low in price because produced by machinery, and which would probably cost considerably more if produced entirely by hand.
9. Enumerate the qualities of iron which render it of such great value in the construction of tools.
10. The making of steel.
11. The development of electrical power in the United States.
12. Types of machinery used in industrial enterprises in your community at the present time.
13. The division of labor between men and machines in your community.
14. Types of work which can be done by machinery. Types of work which cannot be effectively carried on by machinery.
15. Classify the industries of your community according as they rely chiefly or entirely upon human, animal, water, steam, or electrical power. Why does each industry not utilize some other form of power than that actually employed?

Questions for Classroom Discussion

1. Why do you suppose that the Industrial Revolution began in England, rather than in France, Germany, Italy, or some other country?
2. In early New England many mills and factories were established along the rivers in order to take advantage of the water currents. Later on these mills and factories were run primarily by steam, rather than by water power, yet they continued to be located along the rivers. Why?
3. What is the difference between anthracite and bituminous coal?
4. What are the advantages of steam power over water power?
5. What are the relative advantages of steam power and electrical power?
6. Do you think that electrical power will eventually become more important in our staple manufacturing industries than steam power?
7. Can you think of any common industrial processes which might possibly be performed by machinery, but which it is at present cheaper to carry on by hand?
8. Why do you suppose that the progress of the Industrial Revolution has been relatively slow in India and China?
9. Discuss the statement that "the division of labor depends upon the extent of the market."

10. Discuss the statement that "the invention of the power loom would have been of small importance without the invention of the steam engine."
11. Which is more important, coal or iron?
12. Discuss the statement that "in modern industry steam is the motive power, and iron is the fulcrum."
13. Discuss the effect of an extensive use of machinery upon the wage-earning class.
14. What do you suppose was the effect of the Industrial Revolution upon our monetary system?
15. Discuss the statement that "the Industrial Revolution showed man a new way of getting a living."

CHAPTER V

THE CONQUEST OF THE WEST

a. The westward movement

65. Nature of the westward movement. — The period of the westward movement is indefinite in length, so that it is impossible to say just when it began and just when it ended. It is safe to say, however, that the westward migration of settlers began sometime in the colonial period, and that it continued, at least in some sections of the country, until practically the end of the nineteenth century.

During this period hundreds of thousands of settlers moved westward from the more eastern portions of the country. Settlers spread over the Appalachians and into the Ohio and Mississippi Valleys; in turn groups of pioneers abandoned the more settled portions of these valleys, and pushed beyond the Mississippi into different sections of the Far West. Considered as one great migration, the westward movement consisted of a steady and long-continued flow of people over the Appalachians and westward to the Pacific Coast.

Many of the westward-moving pioneers were native Americans, that is to say, they were individuals who had been born and raised in some part of the United States. Others were European immigrants. Until late in the nineteenth century, the immigrants who took part in the westward movement were almost entirely from England, Ireland, Germany and other countries of northern or northeastern Europe.

66. Causes of the westward movement. — What were the causes of the westward movement? What forces drew thousands of settlers westward every year for almost a century and a half?

No single answer can be given to these questions. Many families undoubtedly crossed the Appalachians because land was cheap in the West, while in the more thickly settled East land was relatively high in price. In many cases the virgin fertility of western lands attracted Easterners who were dissatisfied with the infertile or exhausted soils of many parts of the Atlantic seaboard. Many individuals who had somehow failed to "get along" in the East went west in the hope of improving their fortunes. Others went west because of the desire to be near friends and relatives who were already established in the newer parts of the country. The free and easy life of the frontier proved a strong lure in many cases. Finally, the native energy, restlessness, and spirit of adventure in many Americans impelled them to leave their homes in the East and to plunge into the untracked wastes of the Great West.

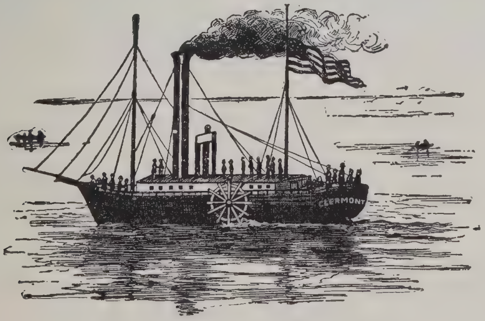
67. Methods of reaching the West. — The westward moving pioneers went over the Appalachians and into the West by a variety of methods, many of them pitifully crude.

Many of the pioneers went over the mountains *on foot.* This was particularly true of those who were very poor, those who were going only short distances, and those who went west previous to the development of the highway and the railroad. Sometimes these pioneers carried their scanty possessions on *their own backs*, and sometimes they trundled their goods in *wheelbarrows*. In other cases the pioneers walked, but made use of one or more *pack horses* to carry their belongings.

Where the Indian trails had been widened sufficiently, and where the pioneers were not too poor, a *horse-drawn wagon* was employed. This was used chiefly to carry the possessions of the emigrants, though partly also to transport the women and smaller children. In the region between the Atlantic Coast and the watershed of the Appalachians, the pioneers often took advantage of such *highways* as had been constructed. The great Cumberland road, begun by the Federal Government in 1811, led from Maryland westward, and penetrated, by 1838, as far west as Vandalia, Illinois. Thousands of settlers used this highway in their westward migration.

A large use was made of such *natural waterways* as rivers and streams. Hundreds of thousands of settlers went by boat up the James, the Potomac, and similar streams to the crest of the Appalachians, thence by land to the headwaters of the Tennessee, the Cumberland, or other branch of the Ohio River, and again by boat into the Ohio or Mississippi Valley.

River Travel in Early Days by Means of the Flatboat

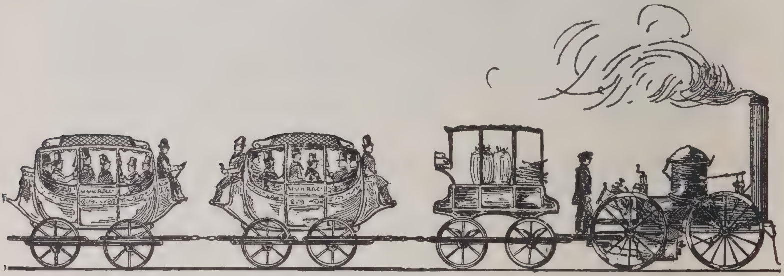


Fulton's Side-Wheeler "Clermont"

This began in 1807 to make regular trips on the Hudson River from New York to Albany.

After 1812 these natural waterways began to be supplemented by *canals*, of which many were constructed between 1812 and 1850. The most important and successful of these was the Erie Canal, begun in 1817 and finished in 1825. This canal ran from Albany on the Hudson River to Buffalo on Lake Erie. Taken together, the Hudson River and the Erie Canal provided a navigable waterway from New York City to the Great Lakes.[1]

In 1807 Robert Fulton succeeded in running a *steamboat* from New York to Albany, and thus demonstrated the practicability of steam navigation by water. The steamboats soon came into general use as a means of navigation. In 1809 one appeared on the Delaware River, and in 1811 the steamboat was introduced on the Ohio River. The number of steamboats on western rivers increased rapidly, from fourteen in 1815 to four hundred and fifty in 1842. Needless to say, this rapid development greatly stimulated the westward movement.



An Early Railroad Train

The first American railroad of any importance was the Baltimore & Ohio, which opened for traffic in 1830.[2] Railroad building was at first confined to the Atlantic Coast, but after 1840 there was an active interest in railroad projects west of the mountains. After 1850 railroad building was very active, especially in Ohio, Illinois, and other western states. Chicago and New York were connected by rail in 1853, and by the time of the Civil War the region east of the Mississippi River and north of the Ohio River was pretty well supplied with railroads. After the Civil War, railroad building was rapid, especially in western United States. In 1869 the first transcontinental railroad was completed. Between 1880 and 1890 our railroad mileage practically doubled. The largest increases in this decade were in the central and western states, into which immigrants were moving rapidly. By 1890 the fundamental bases of our present railroad system had been laid.

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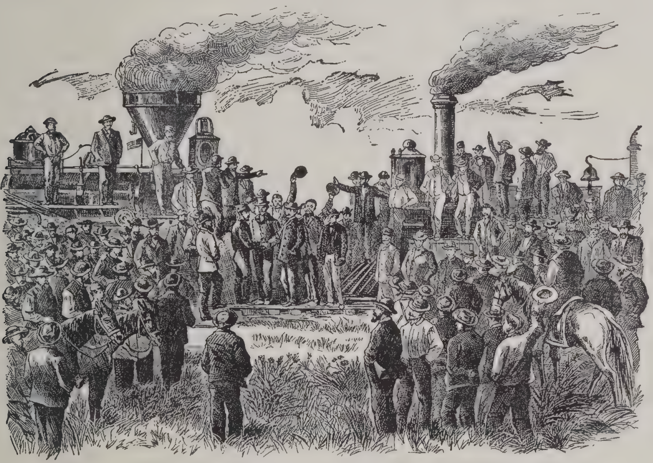
[1] For the effects of the Erie Canal upon industrial development, see the *Readings*, pages 59–61.

[2] For an account of the first journey by steam in America, see the *Readings* pages 61–63.



Completion of the First Trans-Continental Railroad in the United States

The Union Pacific and the Central Pacific railroads joined near Ogden, Utah, on May 10, 1869.

68. The westward march. — Such, then, were the chief methods utilized by the westward-moving pioneers. As methods of transportation became more and more effective, larger and larger bodies of settlers moved westward. By 1820 the Ohio River was well lined with groups of settlements, and by 1840 groups of pioneers had established themselves in considerable numbers in Indiana and Illinois. By 1860 the frontier line had extended beyond the Missouri River, and the march of settlement up the slope of the plains had begun. Between 1870 and 1880 large areas in Dakota, Nebraska, Kansas, and Texas were settled, and there were isolated groups of settlers on the Northwest Pacific Coast. By 1890 these isolated settlements had been joined with the eastern sections of the country by new pioneer communities, so that there was now a continuous body of settlement practically across the continent. The frontier had disappeared, and the American people were really in possession of the land.[1]

The westward movement, together with the developments which accompanied it, markedly affected the problem of getting a living in the United States. Let us inquire into this.

b. The westward movement and the division of labor

69. How the natural resources of the West furthered the division of labor. — We have already seen that the division of labor in colonial times was encouraged by the differences in the natural resources of various parts of the Atlantic seaboard. The division of labor was still further encouraged by the fact that the westward movement brought the American people into contact with an area almost as large as the whole of Europe, the different sections of which differed widely as to climate, soil, minerals, and other natural resources.

In the Gulf states, for example, the soil and climate encouraged settlers to specialize in the growing of cotton. Newcomers in the upper Michigan peninsula were encouraged to devote their time to copper mining, because of the existence there of rich copper deposits. The pioneer in the Pacific Northwest specialized in lumbering, or mining, or fishing, because the natural resources of that part of the country encouraged these occupations. Other sections encouraged other types of specialization. In an important sense, this encouragement was *independent* of the past training and the inborn abilities of the settlers. Although the settler in the Gulf states, the settler in Michigan, and the settler in the Pacific Northwest might all have been New England shoe-makers before they went west, the particular natural resources of the section in which each settled tended to encourage a diversity of occupations.

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[1] A more detailed account of the westward march will be found in the *Readings*, pages 63–65.

70. How improved transportation furthered the division of labor. — The division of labor was greatly encouraged by the improvement of transportation facilities which accompanied the westward movement. Of particular importance in this regard is the railroad. Without the railroad and other agencies of transportation settlers in different parts of the country could not have made effective use of the natural resources with which they came in contact.[1]

To illustrate this point, let us suppose that I am a pioneer in Oregon. Although I am surrounded by rich virgin forests, I cannot specialize in lumbering until the railroad penetrates to my vicinity. Why? Because, in the first place, if I did I should find myself in possession of a great surplus of lumber which I myself could not use, and which I could not dispose of to anyone else. In the second place, if I specialized in lumbering in an area in which there was no railroad, I might find myself without such necessities as tools, shoes, and even food. If I gave all of my working time to lumbering I could neither provide these necessities for myself, nor could I — in the absence of effective transportation — secure them from outside sources.

But suppose that the railroad penetrates to my vicinity, and that I am thereby connected with specialists in other parts of the country. Now truly I can live by lumber alone. I now give all of my working time to lumbering, because under the circumstances it is at lumbering that my labor is most effective. I ship the larger part of my timber to lumber mills in the more settled parts of the country, and receive money for it. With this money I can buy whatever I like. I may buy clothing made in New England, saws and axes made in Chicago, books published in New York City, and numerous other articles produced by individuals who are somewhere specializing in a particular type of work, just as I am specializing in lumbering. The railroad that carries my surplus timber away from me can carry back to me the clothing, the saws and axes, the books, and the other articles which I have purchased.

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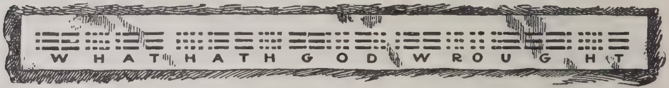
[1] For Adam Smith's discussion of the relation between industrial development and transportation, see the *Readings*, pages 57–59.

71. How improved means of communication furthered the division of labor. — The postal service, the telephone, and the telegraph may be called means of *communication*, as distinguished from such means of *transportation* as the steamboat and the railroad.

The expansion of our postal service has been so complete that to-day it covers the country like a fine network of nerves. After 1840 the telegraph came into prominence, and by 1860 there were 50,000 miles of telegraph lines in the United States. All of the important cities of the country were connected by telegraph by the close of the Civil War. In 1875 Alexander Graham Bell invented the telephone, and this form of communication was rapidly adopted in all parts of the country.


W H A T H A T H G O D W R O U G H T

The First Telegraph Message in the Morse Alphabet
Sent from Washington, D.C. to Baltimore in 1844.

Means of communication are an important supplement to our transportation system because they allow specialists in different parts of the country to keep in touch with one another, and to arrange for the exchange of goods and services. Suppose, once more, that I am an Oregon lumberman. Assume, for the moment, that I am near a *railroad*, but that I am deprived of the use of the mails, the telephone, and the telegraph. In such a case I could send my lumber to a mill, but I should myself have to travel there with it in order to effect its sale. Likewise I should have to make a trip to New England to get the clothing I wish to purchase, and other trips to secure the remainder of the goods which I desire. If the *postal service* extends to my community I can stay at home and transact this business by mail. If I also have the use of the *telephone* and *telegraph* I can often transact my business with other specialists with more satisfaction and rapidity than would be possible by letters alone.

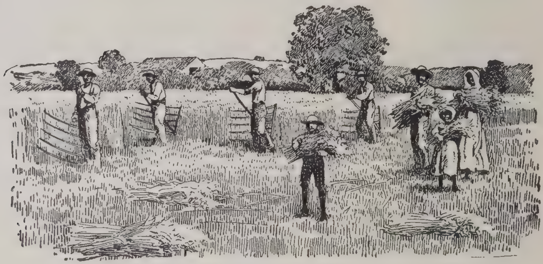
72. Relation of effective transportation and communication to the market. — A system of effective transportation and communication is thus of the most profound importance, because *it permits an effective coöperation between industrial specialists who reside in different parts of the country, and who find it unprofitable or impossible to live very near one another.*

At the present time, the surplus products of specialists throughout the United States may be carried to distant markets, and sold to consumers who have never heard of the original producers. The Oregon lumberman ships his logs to market, and by means of railroads, waterways, trolleys, letters, telegrams, and telephone messages, he is enabled to secure some of the surplus products of specialists in other sections. The Alabama cotton grower specializes in cotton growing, but may buy the shoes produced by a New England concern, farm machinery made by a Chicago manufacturer, flour produced by a Minneapolis miller, and oranges raised by a California fruit grower. The Illinois corn grower may now purchase goods produced by a victrola manufacturer in New Orleans, a shirt maker in Troy, New York, a candy maker in Denver, or an automobile manufacturer in Detroit.

And what is all the more remarkable, there need be no *direct* bargaining between producer and consumer. Indeed, few such exchanges as those just enumerated are effected *directly*. They are made *indirectly*, through the medium of such specialists in marketing as commission dealers, advertising specialists, mail-order houses, and retail stores. Thus when we say that the Oregon lumberman is " in the market " for shoes produced in Lynn, Massachusetts, we do not mean that the lumberman has actually to go to a definite market *place;* on the contrary he gets those shoes through a complex marketing mechanism. Formerly all markets were definite physical areas. While many markets are still of this type, a market may now exist regardless of physical area. Wherever there is a *connection* between potential buyers and potential sellers, there may be a market. The more extensive the *connections* which transportation and communication create between buyers and sellers, the wider the market. Thus to-day we speak of even a "world market," for wheat and other goods which are in general demand, and which, by means of transportation and communication, can be sold and delivered to consumers in all parts of the globe.

c. The westward movement and the use of Nature

73. The westward movement furthered man's use of natural products. — We have explained at some length just how the division of labor was furthered by the westward movement and the developments which accompanied it. It remains to be pointed out that a more effective use of Nature also accompanied the westward movement.

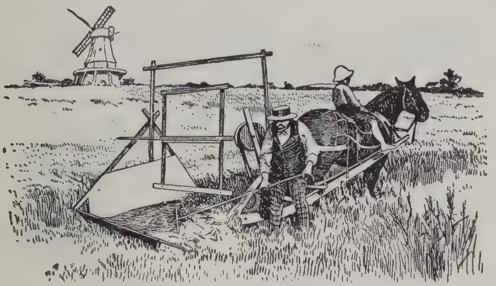


The Old Way of Reaping

Note the lack of labor-saving machinery.

As may be surmised from the foregoing paragraphs the westward movement brought the American people into contact with new sources of *natural products.* The fertile soils of the Ohio and Mississippi Valleys came under the control of the American farmer. The Great Lakes region began to yield quantities of iron and copper. Petroleum was discovered in Pennsylvania, Indiana, Oklahoma, Texas, and other states. The Pacific Northwest and other sections offered new sources of timber. California began to yield oranges, lemons and other semi-tropical fruits. Everywhere that the settler went, he examined the soil, the climate, and other natural resources, and wherever possible he took advantage of these to improve his living.

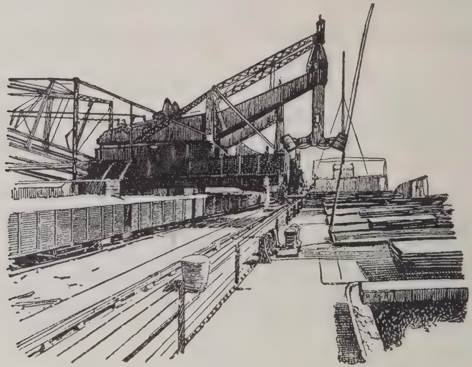
74. The westward movement furthered man's use of natural power. — Our discussion of transportation has indicated that the westward movement was accompanied by an improved use of *natural power*. A steady succession of inventions perfected the steam engine and consequently improved man's ability to get more and more energy out of coal and steam. After 1880 steam power was supplemented by electrical power. Electricity was applied to the telegraph and telephone, to the lighting of houses and other buildings, to street cars, and to the automobile. It may almost be said that there has been an electrical revolution in industry, although in the great staple industries steam is still the most important form of natural power.



THE FIRST TYPF OF MCCORMICK REAPER

A great advance over the old way of reaping. Later inventions still further improved this machine.

75. An example of the use of natural power. — A concrete illustration will show the profound importance of natural power in modern industry. We may now turn impure iron ore into steel rails somewhat as follows. At the Lake Superior mines the ore is scooped up with steam shovels and is loaded into freight cars by machinery. These cars run out on to high docks, and the ore is automatically dropped through the car bottoms into the holds of large freight vessels. These vessels then carry the ore through the Lakes to the southern shore of Lake Erie, where the ore is again loaded by machinery into freight cars. These cars carry the ore to Pittsburgh, where the ore is lifted out by gigantic " clam-shell " buckets which seize the ore like great hands. But these buckets are much more efficient than any human hand, for they take up a ton of ore at a time. The ore is then smelted, mixed with different metals to form different qualities of steel, poured into moulds, rolled and shaped — all without being touched by a human hand. This whole process is dominated by the *brain* of man, controlling and directing natural power.



Unloading Iron Ore by Means of Automatic Cranes

Note the substitution of natural power for human power.

d. The Industrial Revolution completed

76. A century of industrial development. — The Industrial Revolution in this country has been a long and complicated development, and for this reason it is impossible to say *definitely* when it was completed. But it is safe to say that the Industrial Revolution in the United States was completed in approximately a century after it began. The year 1789 is significant as the year in which Samuel Slater came to America to set up the type of spinning machines which had been invented and improved by Englishmen. Certainly by a hundred years later, a minute division of labor had been worked out in most of the great staple industries in this country. Certainly, too, this century witnessed the effective application of natural power to our basic industries. We may say, then, that the Industrial Revolution was completed in this country by 1889, because by that time we had pretty thoroughly worked out the two great principles on which a good living depends.

It should be understood, of course, that 1889 is a purely arbitrary date, and that we select it partly because it is approximately the correct date, and partly because in marking the hundredth anniversary of the arrival in America of Samuel Slater, it is a convenient date to remember.

77. A caution. — When we say that the Industrial Revolution in the United States was practically complete within a century after the arrival here of Samuel Slater, we do not mean that an industrial revolution had been effected in *every* phase of American industry. We mean, rather, that a minute division of labor and an extensive use of natural power are now characteristic of the majority of our great staple industries.

In agriculture, it is to be noted, the division of labor and the use of natural power have proceeded much less rapidly than in the manufacturing industries. In general farming, for example, a single individual continues to perform a wide variety of tasks, and although machinery is more and more in use by our farmers, as yet very little use is made of natural power.[1] The student should not forget, therefore, that a minute division of labor and an extensive use of natural power are only *dominant* in American industry, and not *universal.*[2]

78. Summary and forecast. — To summarize the argument of the preceding pages, the completion of the Industrial Revolution was closely associated with the westward movement. Moved by a variety of desires, hundreds of thousands of settlers swarmed into the virgin West for almost a century and a half. The division of labor was furthered by this movement and the industrial developments which accompanied it. Contact with new and more varied natural resources encouraged specialization, as did improved facilities for transportation and communication. The westward movement was likewise accompanied by the increasing use of natural products and natural power. In approximately a century after the arrival in America of Samuel Slater the principle of the division of labor and the principle of power machinery had been sufficiently worked out in our great staple industries, to warrant the statement that the Industrial Revolution was complete.

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[1] For the development of farm machinery, see the *Readings*, pages 65–67.

[2] For a description of cotton manufacture by modern methods, see the *Readings*, pages 68–70.

Let us notice, once more, that the effect of the industrial development of the country has been greatly to increase the number of occupations in the United States. The diverse character of our population, the variety of natural resources within our boundaries, the increasing use of machinery, these and other factors have encouraged industrial specialization. The improvement of means of transportation and communication has enabled specialists to earn a living by confining themselves to a particular type of work. So great has become this specialization, that it would be impossible for us to name all of the occupations of our people. Accordingly, in discussing the occupations of the American people in the next chapter, we shall have to confine our attention to the more important *groups* of occupations.

Questions on the Text

1. What is approximately the period covered by the westward movement?
2. What were the chief causes of the westward movement?
3. Discuss the chief methods of reaching the West. Which of these methods were the most important?
4. By what date had the frontier disappeared?

5. Show how the natural resources of the West encouraged the division of labor.
6. Explain how improved means of transportation furthered the division of labor.
7. What is the importance of improved methods of communication?
8. In what way have transportation and communication expanded the idea of the market?
9. In what way was the westward movement accompanied by a better use of natural products?
10. Illustrate, by the case of the iron and steel industry, the advantages of an extensive use of natural power.
11. Why is it difficult to say just when the Industrial Revolution in the United States was completed?
12. About how long did it take the Industrial Revolution in the United States to work itself out?
13. What two great principles were worked out in the process of the Industrial Revolution?
14. When we say that the Industrial Revolution is now complete, do we mean that it has penetrated every phase of American industry? Explain.
15. What factors are chiefly responsible for the large number of occupations in the United States?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter V.)

1. What, according to Adam Smith, is the relation between the division of labor and the extent of the market? (page 57.)
2. What does Adam Smith mean by saying that " there are some sorts of industry, even of the lowest kind, which can be carried on nowhere but in a great town "? (pages 57–58.)
3. What was the relation of the division of labor to water-carriage in Adam Smith's day? (pages 58–59.)
4. Give an example of transportation costs between New York City and Buffalo before the construction of the Erie Canal. (page 59.)
5. Describe the effects of the opening of the Erie Canal. (pages 59–60.)
6. Give some examples of canals which were failures. How do you account for these failures? (pages 60–61.)
7. When did the steam railroad begin to supersede the canal? (page 61.)
8. Describe the first journey by steam in America. (pages 62–63.)

9. Trace the movements of the frontier line between 1800 and 1850. (page 64.)
10. Summarize the growth of the United States between 1790 and 1910. (page 65.)
11. What was the special importance of labor-saving machinery in the West? (page 65.)
12. What are the most important of modern agricultural inventions? (page 66.)
13. Describe the improvement of the American thresher and its victory at the Paris Exposition of 1855. (page 67.)
14. Describe the mixing and cleaning of cotton in a modern cotton mill. (page 68.)
15. Describe the process of spinning in a modern cotton mill. (page 69.)
16. Describe the process of weaving in a modern cotton mill. (pages 69–70.)

Topics for Investigation and Report

1. Early pioneer life in your community, with particular reference to industrial conditions.
2. Routes used by the westward-moving pioneers of the last century.
3. The use of the stage coach in early America.
4. The pony express in the pioneer west.
5. The life and work of Robert Fulton.
6. The story of the grain reaper.
7. The invention and improvement of the telegraph.
8. The life and work of Alexander Graham Bell.
9. The growth of cities in your section of the country.
10. The use of electrical power in your community.
11. Examples of the factory system in your community or section.
12. Men who have made marked contributions to the industrial development of your section.
13. Interview an elderly relative or friend who is familiar with farming conditions. Ask him to compare the hardships of farm life forty years ago and now.
14. Select some one industry in your community, and attempt to trace the extent of the market which is supplied by the products of this industry.
15 Visit a factory, mill, or shop, and study the organization of the plant with regard to the application of the principle of the division of labor. Secure the amount of output per man by dividing the total product by the number of workmen coöperating in its production. Compare the output per man under

these conditions with the probable output per man if each workman were working separately and without material assistance from other workmen.

Questions for Classroom Discussion

1. Compare the canal with the railroad as a means of transportation.
2. In some parts of the pioneer West, " a suit of store clothes was often worth as much as a farm." Discuss.
3. Discuss the statement that " the railroad increases the value of property."
4. Which is the more important to industry, the telephone or the telegraph?
5. The meat-packing industry has moved westward in the last century. Why?
6. The best agricultural machinery has been invented by Americans. Why do you suppose Americans, rather than Englishmen, or Frenchmen, or Germans, have so markedly improved this type of machinery?
7. What has been the effect upon rural life of the improvement of farm machinery?
8. What factors retard the division of labor and the use of natural power in agriculture?
9. Do you think that the Pacific Coast will ever be an important manufacturing section? Why?
10. What proportion of the clothing used in your community is made by machinery?
11. What factors have been responsible for the growth of our cities?
12. Sometimes apples and other fruit rot under the trees in the rural districts at a season when they are high-priced in large cities. Why is this?
13. Will the aëroplane ever be of practical importance to American industry?
14. The relation of the motor truck to food marketing in your community.
15. What articles of food would cease to appear on your dinner table if from now on your grocer or provision dealer were to be unable to secure articles produced more than a hundred miles away from his place of business?

CHAPTER VI

OCCUPATIONS OF THE AMERICAN PEOPLE

79. Gainful occupations. — According to the United States Census Bureau there were 105,710,620 people within the bounds of continental United States in 1920. Of this number 22,971,305 were under ten years of age, and 82,739,315 were ten years of age or over. Of those who were ten years of age or over, approximately half were enumerated by the Census Bureau as being gainfully employed. This does not mean, however, that about half of our people ten years of age or over are idle, because the Census Bureau does not count as gainfully employed all persons who are busily occupied. For example, it excludes from the list of gainfully employed all women who keep house for themselves or for their families, as well as their grown daughters who assist them without pay. These persons are excluded from the list of gainfully employed, not because their work is unimportant, but because they do not receive a definite money wage for their services.

A Cotton Plant

The cotton grown in the southern United States is the chief source of supply for cotton textile manufacturing in all parts of the world.

Let us notice the chief groups of persons who are enumerated by the Census Bureau as being gainfully employed.

a. Agriculture

80. Extent of agriculture. — Agriculture has always constituted one of our most fundamental, as well as one of our most important, groups of industries. Of the two billion acres comprising continental United States, about half are under cultivation. So great is the extent of our country, and so diversified are its climatic and soil conditions, that American farmers produce a wide variety of crops. Of these, corn, wheat, oats, barley, rye, potatoes, fruits, sugar, tobacco, and cotton are among the most important. More than 10,000,000 persons were employed in some form of agriculture in 1920.[1]

81. General farming. — Of this number more than 9,000,000 are listed by the Census Bureau as being general farmers. This figure is significant because it indicates that more than nine-tenths of the people engaged in agriculture are engaged in diversified farming, rather than in some highly specialized form of agriculture. The average farmer does not confine himself to raising hay, or live stock, or potatoes, or cotton, or any other single commodity, but raises a wide variety of crops. Various grains and vegetables, hay, cattle, hogs and sheep, poultry, a little fruit and a few berries, these are the products of the average American farm.

82. Live stock. — About 325,000 of the people engaged in agriculture specialize in some form of the live stock business. Some of these people make a business of keeping dairy cattle, from which they sell milk and cream. Others are interested primarily in raising cattle, hogs and sheep for food purposes, while still others raise horses and mules for work purposes. Most of our cattle are raised west of the Mississippi River on large grazing tracts. The greater share of our hogs, on the other hand, are raised in the Mississippi Valley, in connection with the culture of corn, an important hog-fattening food. Most of our sheep come from the Far West, though large numbers are produced in the Middle West. Horses and mules are raised scatteringly throughout the country, particularly, perhaps, in the Middle and Far West.

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[1] The occupation statistics given in the remainder of this chapter are taken from the Fourteenth Census of the United States. In order to facilitate comparisons, and in order to keep the frequent use of figures from becoming tedious, most of the figures used in the following pages are given in round numbers.

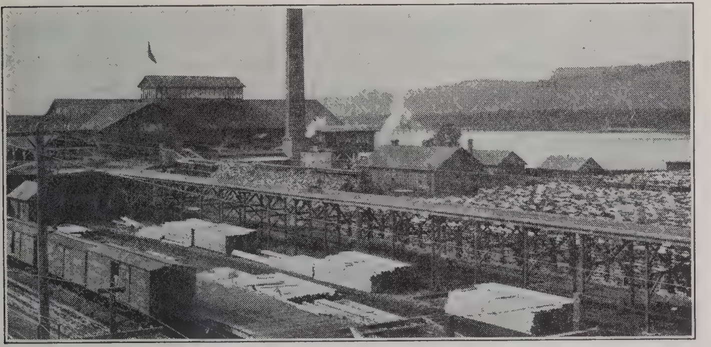
83. Gardening and fruit culture. — Another type of specialized agriculture has to do with the growing of garden truck, flowers and hothouse plants, nursery stock, berries and fruits. Over 300,000 people are engaged in these occupations. Of this number 137,000 are laborers in cranberry bogs, gardens, greenhouses, nurseries, and orchards. About 6,000 additional persons are engaged as foremen in such enterprises. Almost 100,000 persons are listed as independent gardeners, while more than 50,000 are independent fruit growers. More than 8,000 persons give all of their time to the raising of flowers, primarily for the city markets.

Grape Culture

b. Lumbering, fishing, and mining

84. Lumbering. — More than three fourths of our original forest area has been culled, cut over, or burned, since colonial times. Nevertheless, our timbered areas are sufficiently extensive to employ more than 200,000 of our people. Some of these chop or saw down the trees, others haul or roll them to railroads or streams, and others see that the logs get to the lumber mill. At the present time our lumbering industry is most active in the tier of states which stretches across Northern United States.

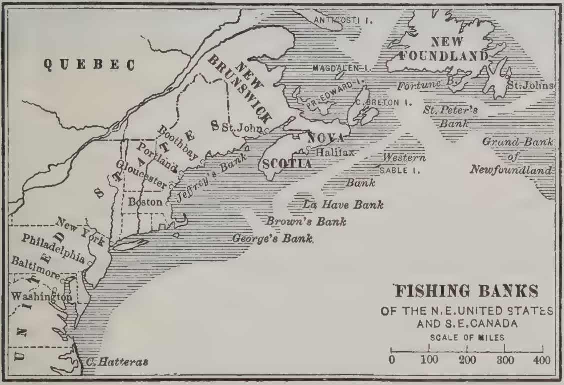
85. Fishing. — Fishing is a popular *pastime* in many parts of the United States, but as a *gainful occupation* it is primarily confined to the region of the Great Lakes and to the coastal areas. Fishing in the North Atlantic for cod, mackerel, herring, and halibut has been an important occupation for New Englanders since colonial times. In the Middle Atlantic district oyster fishing is very important, more than four fifths of the world's supply of oysters coming from this region. On the Northwest Coast the salmon is the most important fish. Altogether some 50,000 of our people are employed in fishing.



A SAWMILL

86. Mining. — The extraction of minerals from the earth employs more than a million of our population.

Three fourths of these are engaged in mining *coal*. Coal mining is an important occupation in Pennsylvania, and is of more or less importance as far west as the Mississippi River. The coal mines of the Great Lakes district employ a large labor force.



Approximately 38,000 people are employed in *iron* mines, chiefly in the Lake Superior region, although the southern Appalachian district is also an important iron mining center.

About 36,000 people are employed in *copper* mining. In the middle of the last century our most important copper mines were in the upper Michigan peninsula, but toward the close of the century Montana surpassed Michigan in the output of copper, and since 1910 Arizona has led in the production of copper.

A Group of Petroleum Wells

The operation of *petroleum* wells gives employment to about 85,000 people. The earlier wells were located in Pennsylvania, but as the eastern deposits neared exhaustion, the industry moved west and south, until to-day the middle western and the southwestern states furnish most of our petroleum.

Gold and *silver* mining employs more than 30,000 people. California and Alaska have been important gold-producing areas, as are Colorado and Nevada at the present time. Silver mining is an important occupation in Nevada, Montana, Utah, and Idaho.

The mining of *lead* and *zinc* employs some 20,000 of our population. Missouri, Idaho, Utah, and Colorado are important lead-producing states. Missouri is also a large producer of zinc.

Finally, more than 45,000 of our people are engaged in quarrying various types of *building stone*. The occupation of quarrying is not confined to any particular part of the country.

c. Manufacturing and mechanical industries

87. Rapidity of development. — Whereas in 1790 the great majority of our people were engaged in some form of agriculture, the Industrial Revolution has since made manufacturing and mechanical industries numerically more important than agriculture. In 1920, for example, about 10,000,000 people were employed in agriculture, while more than 12,000,000 were engaged in manufacturing and mechanical pursuits. With the development of the West and the South these industries have spread from the Atlantic seaboard to other sections of the country. At the present time, our manufacturing and mechanical industries are concentrated in eastern, and particularly in northeastern, United States. On the other hand, the Middle West has already become a center for many of these industries, while of recent years the manufacturing and mechanical industries of the South have been expanding rapidly.

88. Unskilled and semi-skilled laborers. — More than 1,400,000 unskilled and semi-skilled laborers are employed in the iron and steel industries, chiefly in car and railroad shops, ship and boat building, automobile factories, blast furnaces and steel rolling mills, and "other iron and steel factories." Over 1,000,000 are engaged in the production of cotton, woolen and other textiles. More than 600,000 laborers are employed in the building trades, and as general or miscellaneous laborers. The manufacture of furniture and other wood products employs almost a half million of our population. The food industries, such as baking, butter and cheese making, fruit and vegetable canning, meat packing, and flour milling, employ about 360,000 unskilled and semi-skilled laborers. A quarter of a million people find work in tanneries and shoe factories, while approximately an equal number work in the clay, glass, and stone industries. The chemical and allied industries employ another 125,000 laborers. The cigar and tobacco industries employ about 180,000 laborers. Some 90,000 unskilled and semi-skilled laborers are engaged in the printing and publishing trades, and about the same number work in paper and pulp mills.

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BREAKER BOYS

Unskilled labor in coal mining.

89. Skilled workmen.—Almost 900,000 of our population are skilled carpenters, while more than 800,000 are skilled machinists. More than 300,000 people are either painters, glaziers, varnishers, or enamelers, while about 200,000 are plumbers, or gas and steam fitters. About 280,000 persons are listed as mechanics. An equal number are engaged as engineers, cranemen, and hoistmen, and approximately the same number are employed as dressmakers, seamstresses, or milliners. About 200,000 persons are blacksmiths, and an equal number are electricians. Molders, founders, boiler makers, and casters of metal total about 200,000. More than 140,000 persons are compositors, linotypers, and type-setters, and approximately 130,000 are brick and stone masons. There are 100,000 bakers in the United States.

Some 74,000 boys and young men are apprentices in the building and hand trades. These apprentices are training to become machinists, electricians, plumbers, carpenters, tin-smiths, coppersmiths, blacksmiths, boiler makers, masons, painters, paperhangers, plasterers, or roofers.

90. Foremen, managers, and superintendents. — Lastly, there is a relatively small group of individuals employed in manufacturing and mechanical industries as foremen, managers, or superintendents. About 300,000 of these people are listed by the Census Bureau as foremen and overseers in manufacturing establishments, while over 200,000 more are managers and superintendents.

d. Transportation and communication

91. Water transportation. — The Census of 1920 gave 3,063,582 as the number of persons employed in transportation and communication. Of this number more than 180,000 are employed in connection with water transportation. Some 60,000 of these are common laborers, sailors, and deck hands. About 85,000 of the total number are longshoremen and stevedores. Captains, masters, mates and pilots total more than 26,000. More than 6,000 are listed as boatmen, canal men, and lock keepers.

92. Road and street transportation. — More than a million people are occupied in connection with road and street transportation.[1] Of these more than 125,000 are engaged in building roads and streets, and in keeping them in order. Over 400,000 people are employed as draymen, teamsters, and expressmen. Almost 300,000 are chauffeurs, while 42,000 are garage keepers, and 30,000 are laborers in garages. So universally has the automobile superseded the horse-drawn carriage that only 9,000 of our people are now engaged as carriage and hack drivers, while only 18,000 are employed as hostlers and stable hands, and only 11,000 are livery stable keepers and managers.

93. Street car transportation. — The rise of the American city has increased the importance of urban transportation. At the present time more than 170,000 people are occupied in connection with street car transportation. Over 63,000 of these persons are employed as street car conductors, and approximately the same number are engaged as motormen. More than 25,000 people are laborers in car barns and on the car tracks. Several thousand additional persons are employed as switchmen, inspectors, and foremen.

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[1] As used by the Census Bureau, the term " road and street transportation " does not cover transportation by street railway or trolley.

94. The steam railroads. — Our steam railroad system gives employment to more than 1,000,000 people. Almost a half of these are common laborers, engaged in heavy, rough work. Over 100,000 are locomotive engineers, while approximately the same number are firemen. About 115,000 are brakemen, and 75,000 are conductors. Over 15,000 act as baggagemen and freight agents, while more than 100,000 are switchmen and flagmen. About 25,000 are used as ticket and station agents, while a like number are required to take care of the engines, and to care for the boilers in the engine houses.

95. Communication. — About a half million of the American people earn their living in connection with our system of communication. About 25,000 of these are express messengers and railway mail clerks. There are almost 100,000 mail carriers in the United States, and almost 200,000 telephone operators. About 80,000 people are occupied as telegraph operators, and about 9,000 as telegraph messengers. About 40,000 people are kept busy repairing and keeping in order our complicated network of telephone and telegraph lines.

e. Trade

96. Persons engaged in trade. — The term "trade," as used by the Census Bureau, includes a wide variety of occupations, together employing 4,242,979 people in 1920.

Over 70,000 are wholesale dealers, and persons who are engaged in importing goods into this country from foreign countries, or exporting American-made goods to foreign countries.

About 180,000 persons are engaged as commercial travelers, sometimes known as "drummers" or as "travelling salesmen." The primary function of these persons is to persuade retail or other dealers to purchase goods from the wholesalers, manufacturers, or other employers of the commercial travellers.

A quarter of a million persons are employed at common labor in connection with various types of trade. Half of this number are engaged in coal yards, elevators, lumberyards, stockyards and warehouses, and the other half are employed in stores.

Some 170,000 people are listed as deliverymen. Over 20,000 of these are deliverymen for bakeries and laundries, while about 150,000 deliver the goods bought in retail stores to the homes of the purchasers.

About 400,000 people are listed as "clerks in stores," though many of these are probably sales-people rather than persons engaged in clerical work. Persons who are definitely salesmen and saleswomen in stores total more than an additional 1,125,000.

Lastly, the Census of 1920 enumerated 1,328,275 persons as "retail dealers." These dealers are primarily the owners and proprietors of stores of various kinds, though the term "retail dealers" also includes managers and superintendents of retail stores.

97. The scope of retail trade. — The highly diversified nature of trade will be apparent if we notice the chief products handled by the 1,328,275 retail dealers enumerated by the 1920 Census.

The grocery is the most common type of store, more than 239,000 retail dealers being engaged in this business.

The butcher shop is the next most popular form of store, there being 122,000 retail dealers in meat.

There are, in the United States, more than 80,000 retail dealers in drugs and medicines.

More than 63,000 retail dealers handle dry goods and notions, while another 11,000 dealers conduct department stores.

More than 46,000 persons are engaged in retailing clothing and men's furnishings.

More than 41,000 retail dealers handle hardware, stoves, and cutlery.

The number of retail dealers in candy and confectionery totals 40,000, while about 23,000 additional persons sell fruit in small quantities.

More than 28,000 retail dealers handle automobiles and accessories.

About 26,000 retailers handle furniture exclusively.

More than 22,000 retail dealers handle boots and shoes.

Over 21,000 retail dealers are listed as jewelers.

Cigars and tobacco are sold retail by more than 19,000 dealers.

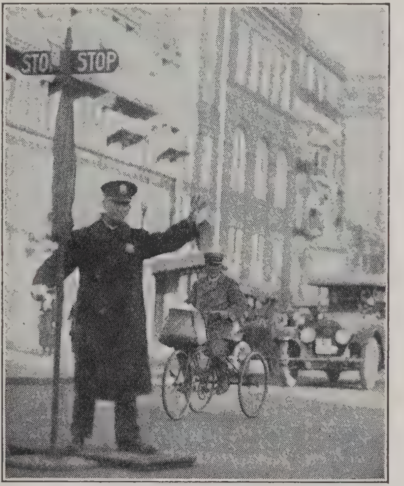
Books, carpets and rugs, coffee and tea, curios, furs, ice, junk, milk, and music are also handled by numerous retail dealers.

It is to be noted that of the 1,328,275 retail dealers enumerated by the Census Bureau in 1920, only 80,000 were listed as conducting "general stores." Early in our national life, the general store was the dominant type of retail shop; with the industrial development of the country specialization has decreased to a relatively insignificant number the stores dealing in a wide variety of articles. The specialized store is to-day typical of retail trade.

f. Other occupations

98. Clerical occupations. — The Census of 1920 listed 3,126,541 people as employed in "clerical occupations." Of these, over 600,000 are bookkeepers and cashiers, and approximately the same number are stenographers and typists. Over 175,000 additional persons are employed as agents, canvassers, and collectors of various kinds. Over 123,000 are shipping clerks, and more than 90,000 are boys and girls who are employed as messengers and bundle carriers. Almost a million and a half persons are listed as "clerks."

99. Public service. — The Census of 1920 classified 770,460 persons as engaged in public service. Of this number 225,000 are soldiers, sailors, and marines.[1] More than 115,000 are guards, watchmen, and doorkeepers, while more than 100,000 are laborers. Over 82,000 additional persons are policemen. Over 55,000 are city and county inspectors of various kinds, 9,000 are state inspectors and "officials," 31,000 are postmasters, and over 39,000 are "other United States officials." Over 50,000 are employed by fire departments. About 30,000 are marshals, sheriffs, or detectives.



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TRAFFIC POLICEMAN

100. Professional service. — The number of people employed in "professional service" in 1920 was 2,143,889. Of this number almost three quarters of a million are teachers in various of our educational institutions. Almost 150,000 are trained nurses. Physicians and surgeons total more than 144,000, while 56,000 additional persons are dentists. More than 130,000 people are employed as musicians and music teachers. More than 127,000 people are clergymen, while more than 122,000 are lawyers, judges, and justices. About 70,000 are designers, draftsmen, and inventors, while 40,000 people are authors, editors, or reporters. Some 48,000 of our people are professional actors and showmen. Over 34,000 people are professional photographers, and about 33,000 additional persons are chemists and assayers.

101. Domestic and personal service. — Approximately 3,400,000 people were gainfully employed in 1920 in some form of domestic and personal service. The largest group is that of servants, which totals more than 1,250,000. Next comes "launderers and laundresses (not in laundry)," of whom there are almost 400,000. There are approximately 220,000 waiters, and a similar number of housekeepers and stewards. Boarding and lodging house keepers total 133,000, while hotel keepers and managers total 55,000. Some 216,000 persons are barbers, hairdressers, and manicurists. Janitors and sextons total 178,000. The next most numerous group is that of "nurses (not trained)," these totalling over 150,000. Over 120,000 persons are laundry operatives. Some 87,000 persons are restaurant, café, and lunch room keepers. More than 88,000 porters were employed in various industries. Elevator tenders total more than 40,000, while charwomen and cleaners total 36,000. Even so lowly an occupation as that of bootblack employs over 15,000 persons.

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[1] This includes only those resident in continental United States at the date of the census enumeration.

102. Summary and forecast. — In the preceding pages we have attempted to show something of the number and variety of occupations which are followed by the American people. To summarize this vast subject, there were 41,614,248 persons ten years of age and over who were gainfully employed in 1920. Of these more than 10,000,000 are employed in agriculture; over 1,250,000 are engaged in lumbering, fishing, and mining; over 12,000,000 are employed in various manufacturing and mechanical pursuits; over 3,000,000 are engaged in transportation; over 4,000,000 are engaged in trade; over 3,000,000 are in clerical occupations; over 770,000 are in public service; over 2,000,000 are in professional service of some kind; and over 3,000,000 are engaged in domestic and personal service.[1]

In Chapter I we discussed the material basis of American industry, and in the following chapters we traced the manner in which the American people came to exercise an effective control over the natural resources of the country. In this chapter, we have seen that as the *result* of an effective division of labor on the one hand, and an effective use of Nature on the other, American business is now represented by millions of industrious people plying a wide variety of occupations. Some of the ways in which American business is directed or handled are discussed in the next chapter.

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[1] For an example of the interdependence which exists between the various occupational groups in the United States, see the *Readings*, pages 85–87.

Questions on the Text

1. Compare the population of the United States in 1920 with the number of persons who were gainfully employed in the same year.
2. What proportion of the persons engaged in agriculture in 1920 were engaged in general farming?
3. What activities are included in the term "lumbering"?
4. To what extent is fishing a gainful occupation in the United States?
5. What type of mining occupies most of the persons who are engaged in the extraction of minerals?
6. Name some of the more important groups of laborers who are employed in our manufacturing and mechanical industries.
7. Contrast the number of persons engaged in water transportation with the number engaged in land transportation.
8. What is included in the term "road and street transportation"?
9. Approximately how many people are engaged in some form of street car transportation?
10. Name some typical occupations in connection with the steam railroads.
11. Compare the number of people engaged in the telephone industry with those engaged in the telegraph business.
12. Illustrate the scope of retail trade by enumerating a number of different types of retail stores.
13. What is included under the term "clerical occupations," as that term is used by the Census Bureau?
14. What are the most numerous branches of professional service?
15. Give some examples of domestic and personal service.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter VI.)

1. What is the relation of the division of labor to the number of occupations? (page 72.)
2. Illustrate the division of labor in pin-making in Adam Smith's day. (pages 72–73.)

3. What, according to Adam Smith, was the effect of the division of labor in pin-making upon productivity? (page 73.)
4. Compare agriculture and manufacturing with respect to the division of labor. (page 74.)
5. Under what circumstances may processes be taken over by machinery? (pages 74–75.)
6. What does Professor Marshall illustrate by the case of the printing trade? (pages 75–76.)
7. What is meant by saying that "machinery increases the demand for faculties of a high order"? (page 76.)
8. Name some factors which have influenced the localization of industries in the United States. (pages 77–78.)
9. Explain the statement that "though an industry may simply chance to be established in a locality, it is not long before certain decided economic advantages emerge." (page 78.)
10. Comment upon the diversity of occupations in Buffalo, New York, in 1920. (pages 79–80.)
11. Do the same for Birmingham, Alabama, in 1920. (pages 80–81.)
12. What is the relation between the size of the crops and the community's power to purchase other goods? (page 86.)
13. What is the effect of the size of the crop upon the solvency of the farming and allied groups? (pages 86–87.)
14. What is the significance of the harvests to the transportation interests? (page 87.)
15. What is the effect of the size of certain crops upon manufacturing? (page 87.)

Topics for Investigation and Report

1. Diversified farming as an occupation in your section.
2. Specialized types of agriculture in your section.
3. Lumbering in your section.
4. Fishing as a gainful occupation in your section.
5. Mining as a gainful occupation in your section.
6. The growth of the manufacturing industries in your section.
7. Types of products turned out by manufacturing industries in your section or community.
8. Transportation as an occupation in your community.
9. Extent to which people in your community are gainfully employed in some form of communication.
10. Public service as a gainful occupation in your community.
11. Types of retail stores in your community.
12. The work of the commercial traveller.
13. Clerical occupations in your community.

14. Domestic and personal service as an occupation in your community.
15. Types of occupations in your community which have not been mentioned in this chapter.

Questions for Classroom Discussion

1. Does agriculture in your section employ fewer or more people than it employed a half century ago? Discuss.
2. Would you expect to find farmers near large cities growing a different type of crops than those grown by farmers in the more isolated rural districts? Why?
3. What is the relation of the westward movement to the cattle business?
4. Do you see any relation between the automobile business and the live stock business?
5. Which is more dependable as an occupation, agriculture or fishing?
6. Discuss the statement that "there is more luck than anything else to mining."
7. To what extent are young children engaged in gainful occupations in your section?
8. To what extent are women entering industrial employments in your community?
9. What is the function of the jobber?
10. What is the function of the broker?
11. Discuss the statement that "to be a jack-of-all-trades in this day and age a man must be a genius."
12. What occupation do you expect to follow? Why?
13. What would you say to a young boy who wishes to leave school in order to become a newsboy or a bootblack?
14. What would you say to a young boy who wishes to leave school in order to become apprenticed to a plumber?
15. Is a boy or girl of high school age in a position really to know what kind of work he or she is best fitted to do?

CHAPTER VII

METHODS OF HANDLING BUSINESS

103. Business organization. — In the preceding chapter we learned that American industry is so vast as to require the services of many millions of workers. We learned, too, that these workers are distributed among a large number of specialized occupations.

But who sees to it that these numerous specialists work together effectively? A partial answer to this important question is that there are certain individuals whose particular function it is to coördinate and direct other types of industrial specialists. These individuals are popularly known as "business men," but we shall call them *enterprisers*, because their chief function is to assemble and to direct a number of other industrial specialists in a given enterprise.

This assembling and directing process is accomplished by means of some form of business organization. If the business can be effectively handled by a single man, the enterpriser may organize it solely under his own personal direction. In this case we have an example of the *individual enterpriser* type of business organization. Under other conditions, as we shall see, a business may be organized as a *partnership* or as a *corporation.*

a. The individual enterpriser

104. The simplest form of business organization. — When an enterprise is directed by a single individual, we have the simplest form of business organization. To illustrate the nature of this type of business organization, let us assume that an individual wishes to go into the shoe manufacturing business for himself. Accordingly he provides himself with leather, tools, a small shop, and other necessities, and sets to work at making shoes. If the enterprise prospers, our shoe manufacturer may buy more equipment, hire laborers to help him, and otherwise expand his business. Despite the growth of the business, however, the shoe manufacturer may himself remain in complete charge of the business. So long as he does, he alone controls and directs it. He takes all of the risks involved in the enterprise, and likewise he takes all of the profits which the business may earn.

Butter-Making Under Simple Conditions

A very small amount of capital is required for the actual butter-making process under these conditions.

105. Advantages of this type of business organization. — The two great advantages[1] of this type of business organization are *thriftiness* and *responsibility*.

In an important sense, *thriftiness* generally characterizes this type of organization because the enterpriser himself gives all phases of the business his personal attention. Since the individual enterpriser gets all of the profits of the business, he practices many small economies which would be neglected or ignored by hired managers. Thus his self-interest is a check on waste and extravagance.

A sense of *responsibility* generally characterizes this type of organization. The enterpriser looks upon the business as *his* business, and he knows that many people will judge him according to the quality of his product. Partly from pride, and partly from fear of adverse criticism, the enterpriser often takes care that his product is wholesome and of good quality. This is particularly true when the business is so small that the customers know who the enterpriser is, and even, perhaps, know him personally.

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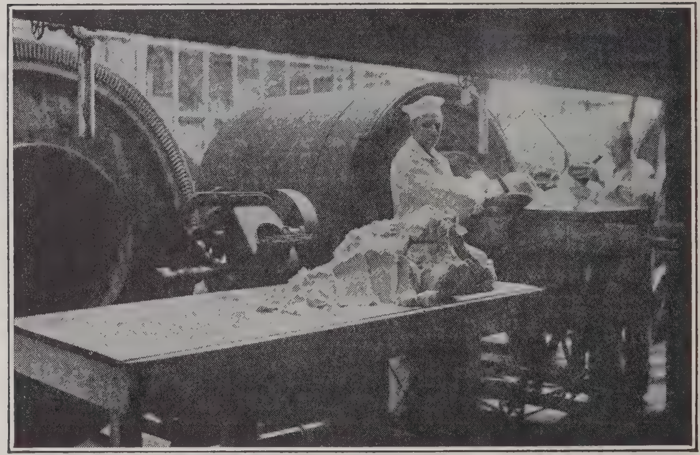
[1] By "advantages" we mean advantages from the standpoint of the community rather than from the standpoint of the enterpriser.

106. Persistence of the individual enterpriser. — The ease with which an individual enterpriser can start a small business, and the efficiency with which he can supervise it, explain the persistence of this type of business organization. Everyone is familiar with individuals who are " in business for themselves." Almost all of our agricultural industries are conducted by individual enterprisers. Many retail stores, such as groceries and drug stores, are organized on the same plan. Most small shops, such as plumbing, painting, job printing, and cobbling shops, are conducted by individual enterprisers. Some manufacturing establishments are also organized on this plan.



BUTTER-MAKING ON A LARGE SCALE

Under these conditions a relatively large amount of capital and skill are required.

107. Disadvantages of this type of business organization. — Although the individual enterpriser persists in numerous businesses, the increasing size and complexity of industry have emphasized the disadvantages of this form of business organization.

To continue our example, the individual shoe manufacturer might find that his expanding business called for *more types of specialized ability* than he himself possessed. His business might grow to the point where the buying of the leather required a very special skill, while the management of complicated shoe machinery called for another type of ability, and the mastery of market conditions called for still a third type of specialized ability.

Then, too, it might easily happen that the growth of the shoe business would demand *more money* than the individual enterpriser could himself command. For example, he might be in need of new and expensive machines which he himself could not afford to buy.

In such cases new businesses would tend to be organized under some plan other than that of the individual enterpriser. Also, businesses formerly conducted by one man would tend to adopt some more effective form of business organization.

b. The partnership

108. Nature of the partnership. — A business partnership exists when two or more individuals enter an agreement to carry on an enterprise *jointly.* Generally only two or three individuals are associated in a partnership, and hardly ever are more than six persons involved.

By agreeing to be partners in a given type of business, a number of individuals may become joint owners of that business. They generally undertake to manage and direct it jointly. The profits of the enterprise are shared by the partners on some pre-arranged plan. Sometimes profits are shared equally among the partners, and sometimes they are shared in proportion to the amount of money which each has invested in the business.

In the simpler forms of partnership there is "unlimited liability." This means that each of the partners is individually liable, not for a *share* of the debts of the business, but for *all* of the debts which may be contracted in the name of the firm of which he is a member. Suppose, for example, that three

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men are partners, and that two of these borrow a large sum of money in the name of the firm, and then flee with it. The creditors of the firm can hold the third partner legally responsible for this money, even though this third partner was unaware of the fact that his two partners had borrowed the money.[1]

109. Advantages of the partnership. — The partnership has several advantages over the individual enterpriser, indeed, the desire to escape the disadvantages of the individual enterpriser type of organization has been one factor in the spread of the partnership form.

A number of partners may divide up their labor so as to keep pace with the growing complexity of business. To continue our previous example, a shrewd leather buyer, an expert in shoe machinery, and a marketing expert might form a partnership for the purpose of manufacturing shoes. Each could confine himself largely to that phase of the business for which he was best fitted.

Again, a number of partners are generally more capable of conducting a large business than is a single individual. By combining their individual savings, a number of partners may often raise more money than a single enterpriser could command.

The partnership, too, can make use of men who could not establish themselves as individual enterprisers. For example, a skilful manager who has no money, and a moneyed man who has no business ability, may join in a successful partnership. Alone, probably, neither of these could establish or maintain himself as an enterpriser.

110. Persistence of the partnership. — The advantages of the partnership over the individual enterpriser account for much of the popularity of the partnership form among business men. Examples of the partnership may be seen on every hand.

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[1] However, the law holds the individual partner liable *only to the extent of his fortune.* Thus if the wealth of this third partner amounted to $10,000, the law would not hold him responsible for more than this amount, although the unpaid debts of the firm might total, say, $20,000.

"Stone and Williams, Grocers," "Clow, Phillips and Berger, Attorneys-at-law," "Patterson and Son, Hardware," such trade names illustrate the partnership. Lawyers, engineers, architects, physicians, and other professional groups often make use of the partnership device. Many retail stores and shops are conducted on the same plan. The partnership is also widespread in small-scale manufacturing, and in mercantile pursuits.

111. Disadvantages of the partnership. — In turn the partnership has several important disadvantages.

The "unlimited liability" feature of the partnership is very often a great disadvantage. Since each partner is individually liable for all of the debts of the firm, many men will hesitate to enter a partnership, lest they find themselves being held responsible for the careless or dishonest actions of one or more of their partners. The larger the number of partners the more dangerous this "unlimited liability" feature may become.

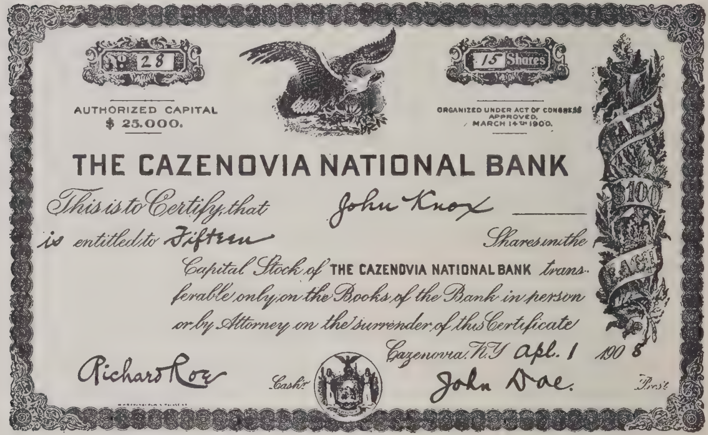
When one partner dies, or withdraws from the business, it is necessary for the affairs of the firm to be readjusted. This is a disadvantage, because such a readjustment often results in the dissolution of the partnership. Because a partnership is always of uncertain continuance, a number of partners will often hesitate to undertake projects which require steady control and consistent development for a long period before they yield substantial profits. Thus the partnership is not best suited to the exploitation of mines, the development of suburban residence tracts, or the reclamation of semi-arid lands.

Lastly, a number of partners may be unable to raise all of the money which the expansion of their business requires. Just as the development of, say, a shoe manufacturing business may require more money than a single enterpriser can raise, so in time it may require more funds than a small number of partners are able to procure.

In such cases, new businesses will tend to be organized as corporations, while businesses formerly conducted under the partnership plan will tend to reorganize as corporations.

c. The corporation

112. Nature of the corporation. — Suppose that a number of us desire to form a corporation for the purpose of carrying on a business.[1] We set down in writing the nature and plan of the business which we propose to carry on, and send this document to the Secretary of the State in which we desire to do business. At the same time we apply to this official for a charter, which may be defined as a legal grant of the business powers which we may exercise as a corporation.



No. 28

15 Shares

AUTHORIZED CAPITAL
$ 25.000.

ORGANIZED UNDER ACT OF CONGRESS
APPROVED,
MARCH 14th 1900.

THE CAZENOVIA NATIONAL BANK

This is to Certify, that John Knox
is entitled to Fifteen Shares in the
Capital Stock of THE CAZENOVIA NATIONAL BANK trans-
ferable only on the Books of the Bank in person
or by Attorney on the surrender of this Certificate

Cazenovia, N.Y apl. 1 1908

Richard Roe Cash^r

John Doe. Pres^t

$100

REDUCED FACSIMILE OF CERTIFICATE OF STOCK

(*a*) *The charter.* — If our application is duly approved, we receive a charter and are declared to be incorporated. The charter specifies the nature of the business which we may carry on, and the period during which we may engage in that business. Although our corporation may consist of a large number of individuals, the charter declares that in the eyes of the law we are henceforth to be considered as *one person.*

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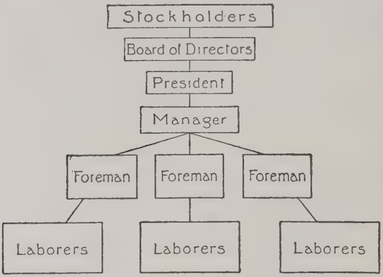
[1] Corporations may also be formed for charitable, fraternal, religious or other purposes, but here we are concerned only with the business corporation.

In our corporate capacity, we may thus enter into contracts, acquire property, sue and defend ourselves in the courts, and exercise other of the legal rights of the individual.

(*b*) *The meaning of corporation stock.* — To illustrate the nature of corporation stock, let us assume that a number of us have received a charter to conduct a wholesale grocery business. To run this business properly will require much more money than we ourselves can raise, and accordingly we desire to have other persons put money into the business. For this reason we advertise the nature of the proposed business by means of circulars, letters, and advertisements in financial newspapers, as well as by means of salesmen and other persons who make a business of promoting this very sort of thing. By these means we invite people to invest in the business. Such persons as are convinced that the plan is a good one may send us, or our agents, as much money as they care to invest in the enterprise.

In return we send these people pieces of paper which are receipts for their money. We also issue to ourselves similar receipts for the money which each of us has put into the business. These receipts are called *shares of stock.* For the sake of facilitating the accounts of the corporation, it has been agreed that every investor must put at least $100 into the enterprise, and that each investor will be considered to have paid in his money in units of $100. Thus a man investing $700 is considered to have invested seven units of $100 each, and he accordingly receives back seven shares of stock, each of which is stamped "$100." The people who have bought shares of stock in the enterprise are known as the *stockholders* in the corporation, because they hold or possess the paper receipts which represent their invested money.

(*c*) *Control of the corporation.* — Since all of the money invested in the business has been supplied by the stockholders, the wholesale grocery business which has been incorporated is *owned* by the stockholders. But whereas a small group of partners generally live in the same community and themselves manage their business jointly, the stockholders of a corporation may total many thousands and may live in all parts of the country. Hence the stockholders cannot themselves actually conduct the business, but must delegate that management to a small group which can reside at the actual seat of the business.



THE ORGANIZATION OF A TYPICAL CORPORATION

This is done by means of voting. All of the stockholders have the privilege of voting on the policies of the corporation, in proportion to the amount of stock which they hold. Thus a man owning only one $100 share can deposit one vote, the owner of seven $100 shares has seven votes, while a stockholder who has invested $5000 in the enterprise has fifty votes. By means of voting, the stockholders of the corporation choose a small group or board of *directors*. These directors either themselves manage the enterprise, or select a president, a manager, and other officers to do so. The persons thus selected are responsible to the board of directors for the conduct of the business, and the board of directors is responsible to the stockholders as a body.

(*d*) *Dividends.* — The profits earned by the corporation are distributed among the stockholders in proportion to the amount of stock which each holds. Thus a man who had invested $200 would receive twice the amount of profits as the man who had invested only $100. When the stockholders receive their share of the profits, we say that the corporation is "paying dividends on its stock." If, at the end of the business year, the holder of a $100 share of stock received $5.00 as his share of the profits, we say that a five per cent dividend has been paid.[1]

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[1] The stockholders of a corporation *own* the business, and their dividends may be considered as *profits*. Sometimes a corporation finds it desirable to borrow money, for which certain receipts are given. These receipts for *borrowed* money are called *bonds*, just as the receipts

113. Advantages of the corporation. — The corporation has several advantages over the two forms of business organization previously discussed.

In the first place, the corporation can gather together *large amounts of money.* Since the average share of stock sells originally for, say, $100, the corporation can utilize relatively small sums. A clerk with $100 in savings could hardly go into business for himself, or even become a partner in an enterprise, but with this sum he may buy a share of stock in a corporation doing an annual business of millions of dollars. By the sale of shares to large numbers of people, the corporation may amass much larger sums than any ordinary partnership could raise.

In the second place, *shares of stock are transferable.* In New York, Chicago, and other large cities there are places called stock exchanges or stock markets, where persons called "brokers" make a practice of buying and selling shares of stock in various corporations. Here the individual may buy or sell shares of stock as readily as he may buy or sell apples in the produce market. A share of stock which is sold is transferred to the new purchaser, and the latter becomes its owner. Since stock is thus salable and transferable, many people are relatively willing to invest in a corporation. They know that should they later desire to withdraw from the enterprise, they may easily do so by paying a broker a small commission to sell their stock in the stock market.[1]

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for *invested* funds are called *shares of stock.* The bonds constitute a mortgage on the property of the corporation, rather than ownership in the business. Bondholders generally receive a fixed rate of *interest,* whereas the stockholders receive *dividends* or *profits.*

[1] If a share of stock which is stamped "$100" sells in the stock market for $100, it is said to be selling "at par." If buyers are competing eagerly for this kind of stock, and different buyers try to secure it by offering a higher and higher price for it, this share of stock may sell for *more* than $100. In this case it is said to sell "above par." If there are more shares of this type of stock than buyers want, then sellers may have to be willing to sell for less than $100 in order to dispose of their stock. In this case, stock is said to be selling "below par."

Woolworth Building, New York

Such large and expensive undertakings as the construction of modern sky-scrapers almost always involve the corporate form of business organization.

In the third place, the corporation enjoys the advantage of *limited liability.* This means that each stockholder is liable, not for the total debts of the corporation, but only for a limited amount. In most cases, the stockholder is liable only for the amount which he has invested in the enterprise. Thus if a corporation goes into bankruptcy, the owner of a $100 share is liable only for $100 to the creditors of the corporation.[1] This is of the greatest importance, since few individuals would invest in a great enterprise if they faced the risk of having to make good the entire debts of the business.

In the fourth place, the large corporation can practice many *economies* which are generally beyond the power of the smaller concern. A large corporation can buy its raw materials in large quantities, and hence more cheaply than if they were purchased in small quantities. Often the large size of the business justifies the employment of experts who can work out economical methods of factory organization, division of labor, and general superintendence. A great corporation can also afford to carry on extensive experiments designed to improve the product, or to popularize new products. Many large corporations make a profitable use of by-products which a smaller business would be obliged to discard. In meat packing, for example, a large business can afford to build a glue factory to utilize the hoofs and horns of the slaughtered animals, whereas a small concern would have so few hoofs and horns at its disposal that the erection of such a factory would not pay.

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[1] Sometimes, as in the case of bank corporations, stockholders are liable for *twice* the amount which they invested. In such cases there is said to be "double liability."

In the fifth place, businesses conducted by corporations tend to be *steadier* than businesses which are carried on by partnerships or by individual enterprisers. Usually the charter of a corporation grants it the right to do business for a great many years, and even forever. When a stockholder dies, his stock is transferred to his heirs; when a director dies, a new one is chosen. In either case, the life of the corporation continues without interruption. This ability of the corporation to live a long time brings an element of certainty into business, and enables the corporation to plan on such extended ventures as railroad building, the development of mines, and other businesses which demand years of consistent control before substantial profits appear.

114. Extent of the corporation. — Although many of our businesses are still conducted either by individual enterprisers or by partnerships, the corporation is to-day the dominant form of business organization. It is estimated that more than nine-tenths of the mineral output of this country is by mines which are operated by corporations. More than three-fourths of the goods manufactured in the United States are turned out by establishments owned and operated by corporations. Practically all of our transportation facilities, as well as our facilities for communication by water, rail, and wire, are in the hands of corporations.

In commercial enterprises of every kind the corporation is playing an increasingly important part. In the future the corporation will doubtless become more and more important, though there is no reason for believing that the individual enterpriser and the partnership will disappear from American industry.[1]

115. Disadvantages of the corporation: uneconomical management. — Let us notice, briefly, two great disadvantages of the corporate form of business organization.

On the one hand, it is often *difficult to manage the corporation economically*. In most large corporations the actual direction of business policies is largely in the hands of hired managers. Unnecessary waste is often the result, because these hired managers rarely take that personal interest in the business which the individual enterpriser, for instance, takes in *his* business. Again, the corporation often becomes very large, and when this growth is excessive, it becomes very difficult to superintend its various departments efficiently. The combination of irresponsible hired managers and unwieldiness due to great size usually spells inefficiency and waste in the management of the corporation.

116. Disadvantages of the corporation: irresponsibility. — On the other hand, the growth of the corporate form of business organization has encouraged *irresponsibility* in business. This irresponsibility may take either one of two forms.

(*a*) *A small inner group may show a lack of responsibility toward the stockholders as a body.* This evil may be illustrated as follows: A small inner group, consisting of the board of directors and a few hired managers, may secretly spread false rumors which cause the public to suspect the soundness of the corporation. Unaware of the falseness of these rumors, a large body of stockholders may hasten to offer their stock for sale in the stock exchange. This renders the public all the more suspicious of the corporation, and the owners of stock have difficulty in disposing of their shares. An over-supply of stock in the market causes a fall in its price, and when the stock is selling for an abnormally low price, the persons who spread the false rumors buy up as much stock as they can. They then allow it to become known that the rumors were false, after which public confidence in the corporation returns, the demand for the stock increases, and the price of the stock tends to rise. The manipulators may then either sell the stock at a greatly increased figure, or they may retain possession of it and thereafter enjoy dividends on stock secured at an abnormally low price.

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[1] For some reasons for the persistence of the small firm, see the *Readings*, pages 99–101.

THE STOCK EXCHANGE IN NEW YORK CITY

(b) *The corporation may show a lack of responsibility toward the public.* Because of the mass of invested capital which it represents, because of the number of laborers employed by it, and because of the large proportion of important commodities which it produces, the corporation is a powerful force in American life. Unfortunately, the corporation tends to be characterized by small and scattered responsibility. The managing officers do not feel much responsibility toward the public, because they are working, in an impersonal sort of way, for a large and shifting body of stockholders, many of whom never visit the plant. The stockholders have a limited financial responsibility, and hence they take little interest in the doings of the corporation, so long as it earns good dividends. As a result, corporations sometimes sell shoddy goods, beat down the wages of laborers, and indulge in other practices which the individual stockholders would not personally sanction, or which they would not indulge in if they were individual enterprisers or members of a partnership.[1]

117. Summary and forecast. — Under the simplest conditions, a business may be organized under an individual enterpriser. The individual enterpriser tends to conduct his business in an efficient and responsible manner, but in many cases he is unable to supply the different types of specialized ability and the large amount of money which the proper expansion of the business requires. Though this type of business organization persists in numerous businesses, it has been superseded in others by the partnership. The partnership often furnishes more types of ability and more money than could be furnished by individual enterprisers, but in turn the partnership has its disadvantages. The feature of unlimited liability, the uncertain duration of the partnership, and its inability to raise very large sums of money, often cause the corporation to be preferred to the partnership. The corporation is now the dominant form of business organization. Its chief advantages consist in its ability to gather together large amounts of money, in the fact that its shares are transferable, in its limited liability feature, in its ability to practice numerous economies, and in the steadying influence which its long-livedness exerts upon business. On the other hand, the corporation may be difficult to manage efficiently, and it may be characterized by a lack of responsibility.

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[1] See, also, the discussion in the *Readings*, pages 95–97.

In the next chapter we shall sum up the development of American industry, and forecast the nature of Part II of the text.

Questions on the Text

1. What is the chief function of the enterpriser?
2. Describe the simplest form of business organization.
3. What are the two great advantages of this type of business organization?
4. What is the extent of this form of business organization to-day?
5. What are the chief disadvantages of this form of business organization?
6. What is the nature of the partnership?
7. Name three advantages of the partnership.
8. What is the extent of the partnership in American industry?
9. What is meant by "unlimited liability," and what is the disadvantage of this feature of the partnership?
10. Explain clearly how a corporation may come into existence.
11. Explain in detail the meaning of the term "shares of stock."
12. What is meant by saying that a corporation pays five per cent dividends?
13. Why may a corporation collect large amounts of money?
14. What is the advantage derived from the fact that shares of stock are transferable?
15. Discuss the limited liability feature of the corporation.
16. Name some additional advantages of the corporation.
17. What is the extent of the corporate form of business organization in American industry?
18. Why is it difficult for a corporation to be managed efficiently and economically?
19. Explain the statement that in the management of a corporation, "a small inner group may show a lack of responsibility toward the stockholders as a body."
20. Explain the statement that "the corporation may show a lack of responsibility toward the public."

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter VII.)

1. Describe the beginnings of shoe manufacture in Lynn, Massachusetts. (pages 89–90.)
2. Contrast early and modern conditions in shoe manufacturing. (page 90.)

3. Under what circumstances may an independent business man find it desirable to take a partner? (pages 91–92.)
4. Why might a bank be more willing to loan money to a partnership than to an individual enterpriser? (page 93.)
5. What is the importance of knowing how the corporation is really controlled? (pages 95–96.)
6. How may control of a corporation settle in the hands of a small group? (page 96.)
7. Describe the manner in which a single individual may dominate a corporation. (pages 96–97.)
8. In what ways may a small group abuse the power of the corporation? (page 97.)
9. Define a trust. (pages 97–98.)
10. Illustrate the development of a typical trust by tracing the early history of the steel business. (pages 98–99.)
11. When was the United States Steel Corporation formed, and what was its capitalization at that time? (page 99.)
12. What is the relation of machinery to the persistence of the small firm? (page 100.)
13. Name some industries formerly carried on within the family circle, but now being taken over by small businesses. (page 100.)
14. What is the relation of the advance of the electrical industries to the persistence of the small firm? (page 100.)
15. What are some of the reasons why the small shop persists in poor districts? (page 100–101.)

Topics for Investigation and Report

1. Examples, in your community, of the individual enterpriser type of business organization. Interview one such enterpriser and attempt to discover, in a friendly way, why he does not take a partner.
2. Make a list of enterprises which have recently been established in your community. What form of business organization has been used in each case?
3. Let us assume that you wish to go into partnership with some of the other members of the class for the purpose of carrying on a particular business. Draw up a partnership agreement, specifying the amount of money each partner is to furnish, the type of work each partner is to perform, and the basis on which the profits are to be distributed.
4. Examples of the partnership in your community. Attempt to discover, in a friendly way, the extent to which members of each partnership divide up their labor.

5. Interview a friendly member of a partnership in your community on the advantages of incorporating the business.
6. Discover, in detail, the process by means of which an enterprise may be incorporated in your state.
7. The differences between " common stock " and " preferred stock."
8. Examples of the corporation in your community.
9. The workings of the stock exchange.
10. The nature and forms of speculation.
11. Attempt to discover the extent to which the nature and function of the stock exchange are understood by people at large. Interview such diverse types of people as a day laborer, a farmer, a travelling salesman, and a physician.
12. Attempt to discover an instance of a partnership which has lately been incorporated. Attempt to discover, in a friendly way, the reason for the change.
13. The economies of large-scale business.
14. Make a study of an enterprise in your community which has either failed recently, or which is not now in a thriving condition. Attempt to discover the reasons for the failure to progress.
15. Meaning of the term " stock watering."

Questions for Classroom Discussion.

1. Are successful business men " born " or " made "?
2. If you were to go into business would you prefer being an individual enterpriser to being a member of a partnership?
3. What things would you wish to know about a man whom you were intending to take into your business as a partner?
4. People sometimes say of the partnership that " two heads are worse than one." Discuss.
5. Why do you suppose that a partnership is so generally dissolved at the death or retirement of one of the partners?
6. Would you expect the partnership or the corporation to be more common in the following businesses: truck farming, insurance, gold mining, millinery, manufacturing, retail fruit business, auto repairing, general merchandise?
7. Secure a stock certificate from some corporation and discuss the significance of the various features described thereon.
8. Stockholders in a corporation have voting rights in proportion to the amount of stock owned. A single individual can elect the entire board of directors if he owns fifty-one per cent of the stock, regardless of the number of persons who jointly control the other forty-nine per cent. Some people protest that in

such a case the one man controlling the majority of the stock has no right to exert more power than all of the other stockholders taken together. Discuss.

9. Discuss the statement that " the transferability of shares of stock in a corporation allows control of the enterprise to come ultimately into the hands of the shrewd."
10. Discuss the statement that " the transferability of shares of stock in a corporation allows control of the enterprise to come ultimately into the hands of the unscrupulous."
11. Why does the stock of a corporation sometimes sell for a high price, and sometimes for a low price?
12. What is the relation of machinery to the development of forms of business organization?
13. Why can large businesses often buy raw materials more cheaply than can smaller firms?
14. Distinguish between large-scale production and large-scale management.
15. Is speculation always bad?

CHAPTER VIII

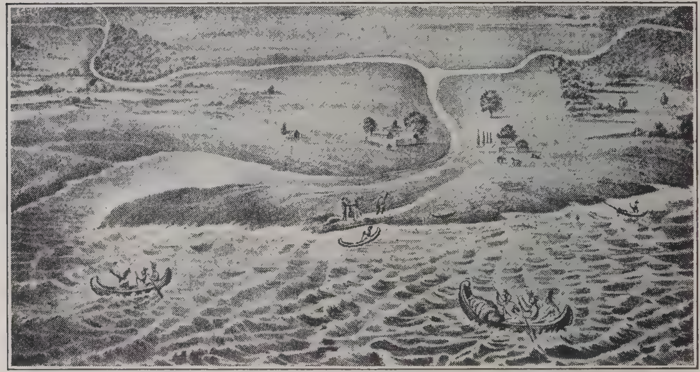
SUMMARY AND FORECAST

118. The purpose of this chapter. — The purpose of this chapter is twofold. In the first place, it is intended to summarize a few of the more significant phases of American industry, as well as to call attention to some points which our previous discussions have slighted or altogether omitted. In the second place, it is intended to show the necessity of *analyzing* the industrial mechanism which so far we have been primarily *describing*, as well as to indicate the essential nature of that analysis.

a. Relation of industry to civilization

119. The nature of civilization. — By civilization is meant a well-rounded and highly developed culture, or, to say the same thing in different words, an advanced state of material and social well-being. Civilization is so vast and so many-sided that it may receive contributions in very diverse forms. The invention of the hieroglyphic system of writing is among the leading achievements of ancient Egypt, but the art and literature of Greece have been no less conspicuous in the onward sweep of human progress. The promotion of the science of navigation by the Phoenicians, and the development of law and architecture by Rome, illustrate a few of the forms in which peoples may confer marked benefits upon the world. The domestication of animals, the invention of the steam engine, and the harnessing of electricity, are further examples of ways in which peoples may contribute to civilization.

120. Civilization and the getting of a living. — The very fact that civilization is vast and many-sided points to the danger of attributing its origin and development to any one influence or principle. It should be pointed out, however, that there is a very close relation between the civilization or culture of a people, and the methods which that people employ in getting a living. The production of works of art, the creation of literary masterpieces, the furtherance of scientific investigations, and the improvement of labor-saving devices, these are a few of the activities which we associate with the term civilization. Of all such activities, however, the most *fundamental* are those which have to do with the provision of food, shelter, clothing and other of the necessities of life. Men may keep on living without painting pictures, writing poetry or experimenting with chemicals, but no one can keep on living without a supply of food, shelter, and clothing. It is impossible for even the greatest genius to contribute to civilization unless he has some means of livelihood.



Civilization Had Not Yet Begun Here

Site of Chicago in 1820.

121. The significance of leisure time. — The significance of leisure time should be noted here. If people are obliged to spend all of their time and energy in getting a bare living, they can never rise to the level of a true civilization. Political theory, art study, scientific research and other cultural activities *take time;* therefore, such activities can be engaged in only by people who can get a living with the expenditure of only a *part* of their time and energy. When getting a living takes up only part of a people's time, there is leisure time which may be devoted to other arts. In an important sense, therefore, the level of civilization to which the masses of the people can attain will depend largely upon their skill in getting a living with the expenditure of relatively little time and effort. It is in this connection that the Industrial Revolution is of such profound importance.

122. Rapid expansion of the wants of civilized man. — Every human being instinctively desires things which will satisfy his wants, but it is primarily among civilized men that wants expand steadily and rapidly. The civilized man of modern times wants material *objects*, such as houses, automobiles, books and jewelry. He wants *services* performed in order that he may be saved effort, or in order that he may be amused, instructed, advised, or comforted. But whatever the variety of his desires, he is always wanting *something*, and no sooner is one want satisfied than he sets his heart upon something else, and bends his energies to securing it. The saying that "the more we have, the more we want," is a shrewd estimate of human nature, for we are so insistent upon more and more things that the comforts, and even the luxuries, of one generation are considered necessities by the next generation. This constant fever to secure more of the good things of life has both a good and an evil side; here, however, we must content ourselves with noticing that the steady expansion of wants provides the greatest known spur to industrial activity. It is one of the fundamental conditions of a high and progressive civilization.

b. A bird's-eye view of American industry

123. Rapid growth of American industry. — No one who is familiar with even the barest outline of American industrial history can help but be deeply impressed with the rapid, mushroom-like growth of our business life. European civilization had risen to a high level long before North America was anything but a trackless wilderness. Yet despite the fact that civilized man has only recently secured control of the area now occupied by the United States, his persistent energy and his great intelligence have made it to-day one of the greatest of industrial nations.

Two hundred years ago the major part of American industry was concentrated along the Atlantic seaboard; since that time it has spread over the Appalachians, into the fertile Ohio and Mississippi Valleys, south and north, and westward to the Pacific Ocean, until to-day it dominates the continent. Within the memory of living men large areas of forest, plain, and semi-desert have been transformed into populous communities with that throbbing swiftness for which American industry has become celebrated.[1]

The Rapidity of Settlement in the West

A town in Oklahoma two days after settlement began.

124. Magnitude of American industry.—American industry is so vast that it is difficult to see it clearly and as a whole. But something of its magnitude may be appreciated if we look at it from three different angles.[2]

In the first place, American industry includes a *wide variety of activities*. A mere list of the more important groups of occupations would be an imposing document. The effect would be much greater if we were to divide each of these great groups into the numerous occupations included within them. To take the group of agricultural industries, for example, we should find that this is divided into grain raising, dairying, the raising of food animals, gardening, fruit growing, and allied activities. Each of these subdivisions may in turn be divided into a variety of occupations. Fruit growing, for instance, may be divided into the production of such hardy fruits as apples and plums, the culture of such delicate fruits as melons and strawberries, and the cultivation of numerous kinds of semi-tropical fruits, such as oranges, lemons, and pineapples.

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[1] For Leroy-Beaulieu's view of American industry at the opening of the twentieth century, see the *Readings*, pages 103–105.

[2] For a statistical view of the magnitude of American industry, see the *Readings*, pages 105–107.

In the second place, American industry *extends over a large area.* The heart of a vast continent is ours, and over this enormous area American industry holds sway. Foreign travellers in this country frequently say that they have been impressed and even appalled by the extensiveness of American business. We Americans generally receive such statements with an air of tolerance and even condescension, without realizing that we ourselves are too little aware of the magnitude of American business. Even the American who is well-travelled in his own land must be greatly impressed, as he goes from coast to coast, with the constant proof that American industry has spread into the most unpromising areas, and into places which might have been considered inaccessible.

In the third place, we may consider the magnitude of American industry from the point of view of its *extension over time.* Under the primitive conditions of Indian life, getting a living consisted chiefly in killing game, catching fish, or raising a small supply of corn, beans and squash. In such cases a relatively short period of time elapsed between the beginning of labor and the final consumption of the articles produced. But with us the minute division of labor and the extensive use of natural products and natural power have greatly extended this period. *Modern production is a long-drawn-out process.* The production of, say, a woolen shirt begins, not with the weaving of the cloth, not with the cleaning of the wool, not with the shearing of the sheep, but with the rearing of those sheep, or with the provision for their pasturage, or even with the manufacture of tools and supplies to aid and support the sheep raiser. The woolen shirt which we buy to-day thus began to be produced months or even years ago. Similarly, the carloads of iron ore which are to-day scooped out of the earth are destined to be consumable goods, but only at some long distant date. Long processes of manufacture, extending over months and even years, will be necessary before we can have a hammer, a razor, or a pen-knife from this particular supply of iron ore.

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The Heart of Chicago

Compare with the illustration on page 116.

125. The complexity of American industry. — No one can attempt to analyze even a minor phase of American industry without being convinced that our business life is a very complicated affair. To the eye of the untrained observer a great mass of factories, farms, railroads, mills, machines, ships, and bustling laborers appears without order, and, often, without purpose. We step on to a public highway, and vehicles rush by us, this way and that, carrying busy people, carrying raw materials, or carrying finished goods. We alight from a street car in an industrial city [1] and the view is even more confusing. Everywhere there is movement, masses of all sorts of things, every type of people, noise, talk, buying and selling, disputation and agreement. *What is it all about?* is the great question which the observer may very well ask when confronted by such spectacles. In connection with this he is aware of only one definite fact, and that is that all this is very complex.

126. The importance of our industrial life. — American industry may be considered as a great complex mechanism, which is of the most profound importance to every American citizen. This mechanism involves the preservation of our lives from day to day, and the provision of bread, potatoes, meat and other of the necessities of life for more than a hundred million people. If this great mechanism works well, our country is showered with the comforts of life: babies thrive instead of perishing from want of food, millions of homes are happy, the arts and sciences flourish, and the sun of civilization climbs steadily upward.

But if this great industrial mechanism goes permanently awry, if it breaks down even for so short a period as a year, what then? Then care appears in millions of homes, anxious eyes search for the barest necessities of life, babies perish and women weep, a cloud rests over the work of artists, writers and men of science, and the great sun of civilization wavers and declines like a plant stricken at the root.

127. The importance of solving our industrial problems. — Since we are dependent for our very lives upon the mechanism of American industry, it follows that we must grapple with the defects which hamper the efficiency of that mechanism. We must not only point out the nature of our industrial problems, but we must really attempt to solve those problems. The problems of American life are now a popular study in our schools, but too often this amounts to a superficial description of the background and nature of our problems, without any serious attempt to *solve* those problems. This type of procedure has somewhat the same value as has the excursion of a hunting party which locates the cave of a chicken-stealing fox, announces the location of the animal, points out the necessity of destroying it, and then returns home without attacking the beast. One of the basic convictions underlying this book is that the student of American industry has a right to know, not only the content of our industrial problems, but also the substance of the most promising solutions for those problems. We therefore propose really to grapple with the most vital and difficult of the industrial problems facing the United States.[1]

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[1] For a description of the rise of the industrial city, see the *Readings*, pages 107–109.

SUFFERING FROM A DISLOCATION IN THE INDUSTRIAL MECHANISM

A striker and his family.

c. Significance of analyzing American industry

128. Familiar things are not always understood. — In one sense, this book deals with the most obvious facts, and with the most commonplace phenomena. Railroads and machines, banks and money, what boy or girl has not seen these things almost daily? Buying and selling, the distribution of laborers into different occupations, such phenomena as these are familiar to all of us.

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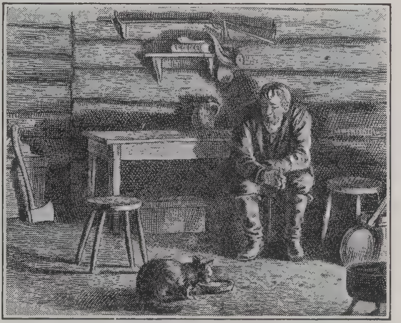
[1] For a brief discussion of the background of our industrial problems, see the *Readings*, pages 114–116.

But it is easy to be familiar with a thing, without understanding it. Any boy may catch a fish, but it takes a biologist to explain just how the fish breathes. Any child can announce the sun is "sinking," but it takes a man of science to explain the full meaning of the movement of the planets. Every boy and girl has seen machines and factories and railroads and money, but it takes an economist to show the real function of these things.



A FRONTIERSMAN

The industrial activities of this man would be relatively easy to understand.

For this reason, the student who is personally familiar with business life should guard against the assumption that he necessarily knows more about the subject matter of this book than a student who is unfamiliar with practical affairs. No student ought to be tricked into inattention or carelessness by the discovery that serious thought is to be given to the analysis of phenomena with which he is superficially familiar.

129. Necessity of analyzing American industry. — In order to discover the nature of our industrial problems, and in order to arrive at an intelligent solution for those problems, we shall have to dissect or analyze American industry. Industry is like every other complicated thing, in that it cannot be comprehended solely by an examination of its exterior. The surgeon dissects or analyzes a human body in order to discover the nature of disease, and the source of a possible cure. A mechanic takes apart or analyzes a machine in order to find what "is wrong with it," and to discover in what way it may be repaired. In the following chapters we shall take apart, or dissect, or analyze, American industry in order to see how it works, what is wrong with it, and, if possible, to discover how to repair or perfect it. Such analysis is absolutely necessary because industry is too vast and too complicated for us to understand unless it is first studied bit by bit, and only later as a unit. The physical eye has a wide range, but the mental eye has so narrow a range that if it is to see clearly it must look at a small area at a time.

TYPES OF CITY DWELLERS

Careful and detailed analysis is necessary before we can understand the industrial activities of these diverse types of people.

130. The nature of analysis. — We must analyze American industry, but how is this to be done? Our industrial life is not a definite, tangible object like a human body or a machine. How can it be taken apart and examined? The answer is that we must handle, not *physical* elements, such as muscular tissue or cog wheels, but *intangible* elements, such as principles, tendencies and forces. Whereas the surgeon finds a muscle and traces its length and connections, we shall have to discover an intangible influence or principle which profoundly affects industry, and trace out its connections and results. In so doing we must maintain the detached point of view which characterizes the finest type of surgeon, that is, we must examine industry objectively and without regard to our personal beliefs and prejudices, and without regard to the part which we personally play in industry. Such is the nature of the analysis which we are called upon to make.

131. The use of theory. — The study of economics has its theoretical side and its practical side. The average citizen is more interested in practical economics than in the theory of economics, but writers of textbooks on economics often prefer theoretical to practical economics.

Now, however practical and concrete a subject may be, its proper study may require a certain amount of theory. The use of theory means that we analyze a problem, and attempt to arrange and interpret the facts so that they will give us a sensible explanation of the phenomena which we are studying. Astronomy, physics, chemistry and other sciences are obliged to make a large use of theory.

But if the use of theory is legitimate, why do many intelligent people have a contempt for it? For two reasons, perhaps. In the first place, untrained observers often condemn theory before they understand its function. This is not the fault of theory, but of the impatient individual. In the second place, many writers become so absorbed in abstract and theoretical matters that they over-emphasize these to the exclusion of practical things. This is not the fault of the student, but of the writer.

132. A challenge to the student. — Neither of these difficulties need exist in the following analysis of American industry. The author has attempted to do his part by emphasizing the practical side of economics, and by using theory only in so far as it is absolutely necessary to an understanding of practical problems. The student can do his or her part by refraining from condemning theoretical argument before its purpose is realized.

But granting that the student will do this, the author hereby challenges the student to examine the argument of the following pages with a critical eye. The student is invited to test the discussion from a practical standpoint, and to require proof that the principles which he is asked to master are of significance in daily life, and related in some concrete way to the ever-present problem of getting along with our industrial environment.

Questions on the Text

1. What is the twofold purpose of this chapter?
2. What is meant by civilization?
3. Name some peoples who have contributed to civilization.
4. Explain clearly the relation between civilization and the getting of a living.
5. What is the relation between civilization and leisure time?
6. Comment upon the nature of the wants of civilized man.
7. Outline the rapid growth of American industry.
8. Illustrate the statement that "American industry includes a wide variety of activities."
9. Illustrate the statement that "American industry extends over a large area."
10. What is meant by saying that American industry extends over a long period of time?
11. Give some illustrations of the complexity of American industry.
12. Explain the statement that "familiar things are not always understood."
13. Why is it necessary to analyze American industry?
14. Explain the nature of analysis.
15. Why do many intelligent people have a contempt for theory?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter VIII.)

1. Show that the industrial development of the United States is relatively recent. (pages 103–104.)
2. Illustrate the nature of our industrial development in the first half of the nineteenth century. (page 104.)
3. Describe the industrial growth of the United States since 1860. (pages 104–105.)

4. Illustrate the magnitude of American industry by quoting some of the crop estimates for 1921. (page 105.)
5. What are some special motives for the growth of cities? (page 108.)
6. Name some secondary causes of city growth. (pages 108–109.)
7. Explain how a large industrial city may give rise to a series of near-by industrial centers. (page 109.)
8. What, according to Adam Smith, is the source of opulence? (page 110.)
9. How does Adam Smith illustrate the statement that a multitude of specialists are necessary in order that the day laborer may be provided with a coat? (pages 110–111.)
10. Compare the village of former days with the village of to-day. (pages 112–113.)
11. What is meant by the "impersonality of the market"? (page 113.)
12. Show that relations between worker and employer have become impersonal. (pages 113–114.)
13. Show that the machine is impersonal. (page 114.)
14. Why is our age peculiarly the age of problems? (pages 114–115.)
15. What are the chief factors involved in our economic problems? (pages 115–116.)

Topics for Investigation and Report

1. The relation of slavery to civilization in ancient times.
2. Examples of the rapid expansion of wants in modern times.
3. Rapidity of industrial development in your section of the country.
4. Study the magnitude of industry in your section with respect to the number and variety of occupations involved.
5. Study the magnitude of industry in your section on the basis of its extension over time.
6. Make a study of a given product, such as a hammer, a shoe, or a book, and attempt to trace back to their beginnings the productive processes which have been involved in its manufacture.
7. Attempt to discover the origin of the articles of food which appear on your dinner table.
8. Attempt to discover the origin of the articles which are found in your school room.
9. Study the traffic which goes by a busy street corner, or along a busy highway, in the light of what has been said in Section 125 concerning the complexity of industry.
10. The effect upon your community of a period of prosperity.
11. The effect upon your community of a period of hard times.
12. The extent of poverty in your community.

13. Examine as many textbooks in economics as are available, and compare the various definitions which they give of the word "economics."
14. Make a list of problems which are primarily economic in character.
15. Make a list of problems which are not primarily economic in character, but which are affected by industrial considerations.

Questions for Classroom Discussion

1. Discuss the statement that "production is a long drawn-out process."
2. What would be the effect upon people in your community if the crops in your section were to fail for three successive years?
3. What would be the effect upon your community of a two-weeks interruption of all railroad and automobile traffic in your section?
4. What would be the effect upon your community of the establishment in that community of a large manufacturing plant?
5. What would be the effect upon your community of the discovery of gold in your section of the country?
6. Discuss the statement that "few of the individuals who take part in industry have any conception of the real part which their efforts play in American life."
7. Sometimes a well-intentioned person attempts to hearten factory laborers who are being dulled by tending machinery, by saying that as the result of their efforts, the wealth of the nation is being increased, and humanity benefited. Discuss.
8. What qualities does factory life tend to develop in the individual?
9. What chance has a young boy or girl of this generation to rise in the industrial world by his or her own efforts?
10. Why do you suppose that the author of this book inserted on the title page the following words: "Things ever seen are unseen"?
11. Discuss the statement that "inequality of opportunity leads to inequality of wealth."
12. Would you say that our economic problems are more important than our social or political problems?
13. Discuss the origin of the word "economics."
14. What is the relation of government to economics?
15. What do you consider to be the chief industrial problems confronting the American people?

PART II

THE ANALYSIS OF AMERICAN INDUSTRY

A. THE PARTS OF THE INDUSTRIAL MECHANISM

CHAPTER IX

THE MEANING OF PRODUCTION

133. Production is a much used word. — Probably it would be difficult to find a boy or girl of high school age who has not at least a general idea of what is meant in industry by "production." For wherever farmers are growing crops, or carpenters are building houses, or factories are turning out shoes, clothing, canned vegetables, or steel rails, the word production is in common use.

Not only is this word in general use, but a little thought will show that it has something to do with a number of very important activities. It is related, in some way, to the moving and making of goods, to the accumulation and expenditure of money, to the speed and efficiency with which the industrial mechanism works. In short, the term production is somehow connected with the problem of getting a living.

From this it follows that the term production is of significance in any analysis of the industrial mechanism. And since our notion of production is as yet vague and general, this significance will escape us unless we establish the meaning of the word in clear, precise language. For this reason we must now discover just what the economist means when he uses the term production.

a. Production as an economic term

134. The ultimate aim of man's economic efforts. — In an earlier chapter,[1] it was pointed out that the chief aim of man's economic efforts is to secure the satisfaction of his wants. *The process of using goods for the direct satisfaction of wants is called consumption.* We shall be helped to understand production by briefly examining three phases of consumption.

First, consumption means that a good is used *directly* for the satisfaction of a human want. Goods may be handled and worked over by numerous people and for a long period of time, but until they are in the process of being used up directly consumption does not exist. Thus the sowing of wheat is not consumption because the wheat is not yet used for the direct satisfaction of wants. The harvesting of the wheat, its transportation to the flour mill, its transformation into flour, none of these acts constitutes consumption. Neither can we say that the baking of the bread, or the sale of the bread to housewives, is consumption. But the eating of the bread is consumption, because now, and now only, is the wheat satisfying a human want directly and finally. By " finally " we mean that the bread is destined to be eaten, and for no further purpose.

Second, consumption does not imply the immediate destruction of a good. We consume bread by eating it, but the wearing of clothes, and the use of a pleasure automobile are also acts of consumption. We wear the clothes for a considerable period, and use the automobile for a long while, before these goods begin to give out. Strictly speaking, of course, our consumption of them gradually wears them away, so that if we wear the clothes long enough, or use the automobile long enough, these goods will be destroyed by the process of consumption. And again we say that consumption is final, because clothing and pleasure automobiles are not destined for any further purpose than to be used by consumers.

Third, we can consume *services* as well as *material objects.*

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[1] Chapter II.

Wealth, or goods, it will be remembered, consists of human services as well as of material objects. Human services as well as material objects may be used for the direct satisfaction of wants. Thus when we listen to an orchestra we are consuming the music which it produces. Similarly, when we take the advice of a lawyer, or of a physician, we are consuming a human service. Of course, musicians, or lawyers, or physicians may later render services to innumerable other persons, but this does not alter the fact that in accepting a particular service from them we thereby use that particular service for the direct satisfaction of *our* wants. Similarly, we consume loaves of bread, although the bakery continues to sell other loaves to numerous people.

135. Production defined. — The preceding discussion furnishes us with a clue to the meaning of production. Eating bread, wearing clothes, or listening to the music of an orchestra, are acts of consumption, but wait! Before we can eat bread, it is necessary for numerous individuals to engage in a long series of activities, from the sowing of the wheat to delivering the loaves of bread from the bakery to the housewife. Before we can wear clothes, another series of workmen must perform a wide variety of operations. Before we can enjoy the music of an orchestra, the members of the orchestra must be provided with instruments, they must be trained to play properly, and they must actually furnish their music at a time and place convenient to us. Behind every act of consumption stands a long series of activities which may be called productive. *Production includes every act which makes it possible for man to extend his consumption.* Thus all effort is productive which directly or indirectly renders it possible for man to continue, to vary, or to improve the process of satisfying his wants directly.

136. Production may take two forms. — All productive effort may be divided into two classes.

(*a*) Production may consist in *handling or working over material objects for the purpose of increasing their utility.* Whoever increases the utility of an object thereby enlarges or *extends* its power to satisfy the wants of the individual who will eventually consume it. A manufacturer who turns iron ore into a cook stove has thereby increased the power of the iron to satisfy human wants. A laborer who works a rough piece of wood into the form of a shovel thereby adds to the supply of things which have utility. Everyone is productive, therefore, whose handling or manipulation of material objects actually increases the power of those objects to satisfy human wants, and thereby to extend consumption.[1]

FIREMEN SAVING VALUABLE PROPERTY

The services of firemen are productive in the economic sense.

(*b*) Production may consist entirely in *rendering services.* Although much productive effort is concerned with the handling and working over of material objects, some important types of production consist entirely in the rendering of services which satisfy wants. Thus a lawyer who shows a group of partners how to expand their business by forming a corporation is not only satisfying an urgent want, but he is indirectly making it possible for more consumable goods to be produced. The physician who helps a sick workman to overcome a bad cold may thereby enable that workman to resume an occupation of importance to the community. A policeman who protects property, an actor who provides services which satisfy the wants of the audience, a teacher who imparts information which the community is willing to pay for, all these are examples of production. The rendering of such services makes it possible for certain individuals to extend the process of satisfying their wants directly.

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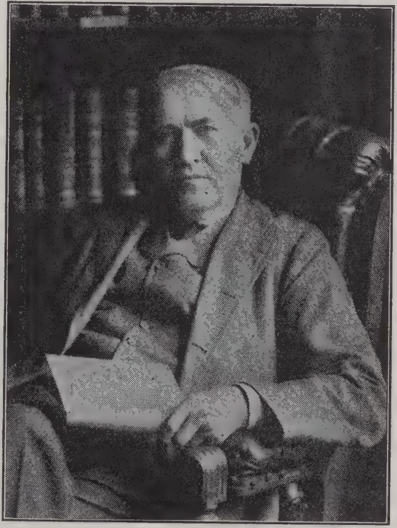
[1] For Adam Smith's view of productive labor, see the *Readings*, pages 117–119.



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THOMAS A. EDISON IN 1904

One of the greatest inventors of all time; a mental worker whose services to humanity must be counted as productive in the highest degree.

There is thus no definite distinction between producers who handle material objects, and producers who do nothing but render services. The point is, do all these persons help, *directly or indirectly*, to make it possible for man to extend the direct satisfaction of his wants? *To the extent that they do*, they must all be classed as productive. And it should be borne in mind that producers who work over material objects are not necessarily *more* productive than producers who do nothing but render services. Thus the teacher, the lawyer, or the physician may be as productive, or even more productive, than the farmer, the miner, and the manufacturer.[1]

137. Productive effort does not necessarily benefit man. — From the point of view of the economist, human effort is productive if it makes it possible for man to extend his consumption. But many of the things which man consumes injure rather than benefit him. Therefore human effort may be classed by the economist as productive, in spite of the fact that it reacts to the injury of man. An example will illustrate this point.

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[1] For Professor Taussig's attempt to distinguish between productive and unproductive labor, see the *Readings*, pages 121–124.

Wheat is an important commodity because it is capable of satisfying our demand for bread. It has utility, and all the labor which helps, directly or indirectly, in the growing of wheat must be classed as productive. But tobacco also has the power to satisfy the wants of numerous people. Tobacco may be very harmful, nevertheless many people want it, and the growing of tobacco is therefore an economic activity. People prove that tobacco has utility for them by paying money for it, just as by paying money for wheat they show that wheat has the power to satisfy their wants. In a later chapter[1] we shall point out the necessity of avoiding those goods which injure us; here we must content ourselves with noticing that *in so far as they affect industrial activity, all goods look alike to the economist.* For this reason the economist classes as productive all effort which directly or indirectly makes it possible for man to extend his consumption, whether the final result of that effort is to injure or to benefit the consumer.

b. Some types of production

138. Man's chief rôle in production. — In the earlier chapters of the text we traced man's growing utilization of Nature. When we stop to realize how markedly this increasing use of Nature has improved our living, we are tempted to assume that man is master of Nature.

But such vanity is not justified. Our so-called "mastery" of Nature is limited to an intelligent direction of natural forces. As we have pointed out again and again, natural power expresses itself blindly, mechanically, and without regard to man and his desires. But man has learned how to take advantage of natural phenomena in order to get a living. In his capacity as producer, man's chief rôle is to manipulate Nature in such a way as to make it possible for him to consume more and different types of goods.[1]

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[1] Chapter XXXV.

Let us notice a few of the typical ways in which man manipulates the products and powers of Nature in order to satisfy his wants.

139. Getting possession of goods. — One of the basic types of productive effort consists in getting possession of goods which are destined to satisfy human wants. By this we do not mean getting goods away from other people, but getting them away from their original possessor — Nature.

A PRODUCTIVE OCCUPATION

Preparing the soil for planting crops.

Here we see the significance of the agricultural, lumbering, fishing, and mining industries which were described in Chapter VI. Agriculture, for example, is primarily a process of getting food and raw materials by taking advantage of the existence of soil ingredients, and by making use of such natural phenomena as rainfall and sunshine. By properly connecting seeds with Nature, we come into the possession of wheat, corn, and other goods which have the power to satisfy our wants. Mining, too, is a process of getting things away from Nature by discovering where she has hidden them, and by bringing them up out of the ground to where they may be used to satisfy human wants. Lumbering and fishing, likewise, help us to secure possession of natural products which will satisfy our wants, but which indifferent Nature will never yield unless we go to the trouble of taking them from her.

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[1] For a discussion of this point by the celebrated Austrian economist, Eugen von Boehm-Bawerk, see the *Readings*, pages 126–128.

All of these methods of getting possession of goods are productive, because they bring us into contact with goods which have utility.[1] From this it follows that all persons who are essential to such activities as farming, lumbering, fishing, and mining, are productive. Such persons are productive, even though their services are *indirect*. Thus the farmer's wife who cooks the meals of the man who grows the crops, the blacksmith who sharpens the axe of the lumberman, the man who reports to the fisherman the location of a "school" of fish, all these are productive.

140. Changing the form of goods. — Agriculture, lumbering, fishing, and mining provide us with goods which have the power to satisfy human wants.

But we can get much more satisfaction out of these goods if we work them over before consuming them. For example, the wheat grown by the farmer will be more palatable and more nourishing if it is worked over into flour and bread before being eaten. The utility of a cow hide can be increased by the process of manufacturing it into shoes. The log felled by the lumberman will have greater power to satisfy human wants if it is trimmed and planed before being used in, say, house-building. The crude iron brought out of the earth by the miner will serve a more useful purpose if it is smelted, made into steel, and then formed into hammers, saws, or knives.

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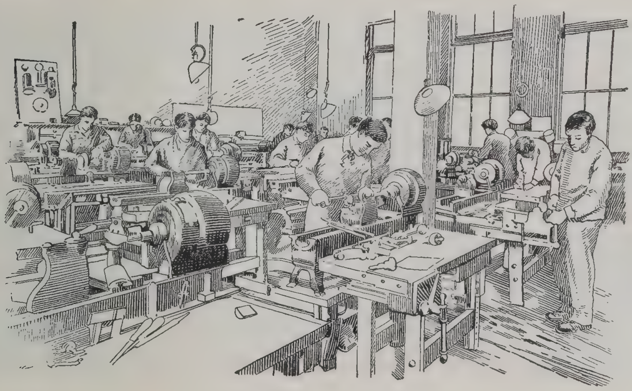
[1] In the technical language of economics, an object which has utility because of its natural qualities, is said to possess *elementary* utility.

Thus another important type of production includes all those manufacturing industries which increase the utility of goods by changing their form, or otherwise working them over. And not only are those persons productive who are *directly* engaged in manufacturing, but we must label as productive all those who are of some *indirect* service in manufacturing. The night watchman who guards the factory, the office boy who runs errands, the stenographers in the office, all these are productive if their services really help in some phase of the manufacturing process.

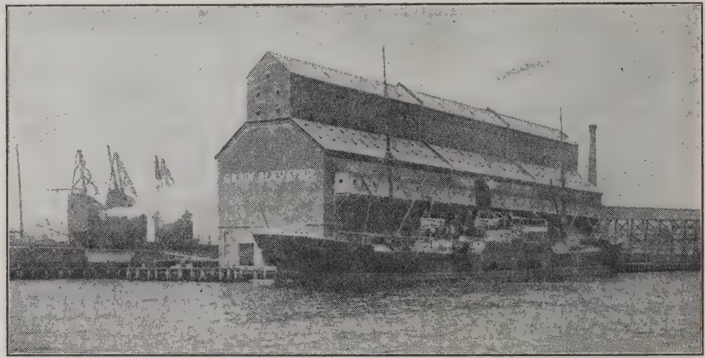


THE MAKING OF TOOLS

In this case production takes the form of working over material objects for the purpose of increasing their utility.

And although the manufacturer depends for raw materials upon the farmer, the lumberman, the fisherman, or the miner, this dependence does not render him less productive than those four individuals. The manufacturer may not add one whit to the *bulk* of a good, but by working it over into a different form, by changing its quality, or by combining it with other materials, he may be as productive as the individuals who wrested the raw materials from Nature. Indeed, he may be *more* productive. For example, the utility of a rough log is limited, since in that form the wood can be used only for fuel or for some similar purpose. But the manufacturer may turn the log into tables, desks, chairs, boxes and barrels, and thus enable the raw material of the log to satisfy a wide variety of wants, each of which may be more important than any of the few wants which the unfinished log was capable of satisfying.[1]

141. Storing goods until they are wanted. — Another type of production consists in holding or storing goods until such time as they are wanted, or until such time as they are wanted more intensely. This holding or storing may occur at any stage between the handling of the raw materials and the final consumption of the finished product. Two examples of the storing process will emphasize its significance.



A Grain Elevator

In which surplus grain may be stored for future use.

The ponds and streams are covered with ice in winter, but in winter there is little use for ice. For this reason ice has little power to satisfy human wants in the winter season. However, ice has great power to satisfy wants in the summer season. Therefore, those individuals who cut the ice and store it until summer, thereby increase the capacity of that ice to satisfy human wants. All those individuals who really aid in the cutting and storing of the ice are productive.

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[1] The utility which a good has by reason of the form in which it exists is sometimes called *form* utility. The manufacturing industries are thus said to create form utility.

Again, the wheat harvest brings so much wheat into the market in the fall of the year that there is more wheat than is wanted *at that particular time.* If all of the wheat were to be sold at this time, much of it would go for a very low price, and in consequence a great deal of it would be used carelessly or wastefully. Much of it might be used to feed hogs and other animals, rather than for the purpose of manufacturing flour and bread for human consumption. In short, much of this wheat would be unable to satisfy an intense want at this particular season.

However, certain individuals make it their business to buy up great quantities of wheat in the fall. This is held until winter, spring, or early summer, when it is sold. This storing process prevents the waste of much wheat in the fall of the year, and helps to keep us from going hungry in those seasons in which no American grain is being harvested, but during which we nevertheless must have bread. The stored grain has relatively little utility in the fall, but it has great utility in the winter, spring, or early summer. This increase of utility is due primarily to storage, and we accordingly label as productive all those individuals who aid in the increase of utility through the process of storage.[1]

142. Taking goods from one place to another.[2] — Another type of production has to do with the transportation of goods from one place to another. Two examples will illustrate this point.

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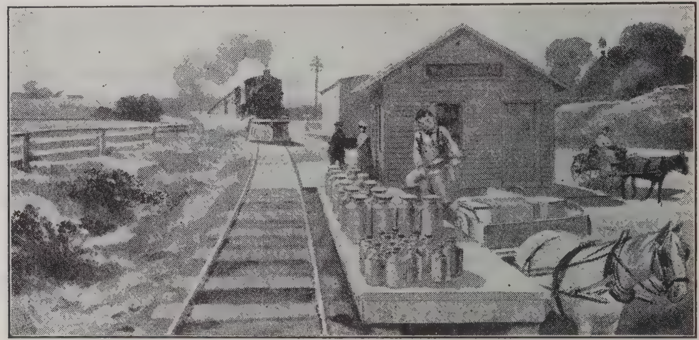
[1] The utility which a good has by reason of being present at a time convenient to the consumer is sometimes called *time* utility. Storage may thus create time utility. Storage is sometimes purely a gambling process, in which case it may not add to the utility of the goods stored. In the above example, it will be observed, we are assuming that such storage does actually result in an increase in utility.

[2] The transportation of goods may occur at numerous stages between the handling of the raw materials and the final marketing of the finished product. Transportation is discussed at this point in the text simply as a matter of convenience.

On the one hand, *a good may be transported from where it has no utility to where it has utility.* In some rural districts apples rot under the trees because every one in the neighborhood has so many apples that much of this fruit cannot be used for any purpose whatsoever. These unused apples have no utility in the locality in which they were grown. But suppose that by means of wagons, motor trucks, railroads, or other means of transportation, these apples are brought to the city. In the city there are few facilities for growing apples, but there are many people who like apples. In the city, therefore, the apples will probably be enabled to satisfy the wants of numerous persons. Transportation has thus *created* utility in a good.



Shipping Milk to the City

Increasing its utility by shipping it from the country, where its utility is relatively low, to the city where its utility will be greater.

On the other hand, *a good may be transported from where it has little utility to where it will have more utility.* Along the seashore fish may be so abundant that there are more than the local residents wish to eat. Many of these surplus fish are accordingly thrown on to the fields to act as fertilizer. The fish so used have utility, but in being used as fertilizer they satisfy a relatively trivial want. But suppose that the surplus fish are transported to an inland city, where fish are scarce and where people are eager to use fish for food purposes. The process of getting the fish from the seashore to the kitchens of the city housewives *increases* the utility of those fish.

And, again, all those persons are productive whose services contribute toward this process. In order to get the fish from the seashore to the kitchens of the city housewives the enterpriser may have to borrow money of a banker, hire an auto-truck, telephone to various people, and employ a commission agent to put him in touch with retail fish dealers. In such a case, the banker, the auto-truck driver, the telephone operator, the commission agent, and the retail dealers, all are engaged in productive labor.[1]

143. Summary and forecast. — To understand the nature of production it is necessary to understand the nature of consumption. Consumption is the process of using goods for the direct satisfaction of wants. Production includes every act which makes it possible for man to extend his consumption. Productive effort may be divided into two classes. On the one hand, production may consist in handling or working over material objects for the purpose of increasing their utility. On the other hand, production may consist entirely in rendering services. In the eyes of the economist, all effort is productive which directly or indirectly makes it possible for man to extend his consumption, whether the final result of that effort is to injure or to benefit the consumer. Man's chief rôle in production is manipulating Nature in such a way as to make it possible for him to consume more and different types of goods. In this connection, four great types of productive effort are getting goods away from Nature, changing their form in order to increase their utility, storing them in order to increase their utility, and transporting them from one place to another for the purpose of either creating or increasing utility. There are numerous other types of productive activity, of course, but these four types are most important for our purposes.

Having seen something of the nature of production, we shall turn, in the next chapter, to an examination of one of the two great forces affecting the productive mechanism. This is demand.

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[1] The utility which a good has by reason of being in a place convenient to the consumer is sometimes called *place* utility. Agencies of transportation are thus said to create place utility.

Questions on the Text

1. Why is it necessary to know just what the economist means when he uses the term production?
2. Define consumption.
3. At what stage in the process of handling wheat may we say that consumption exists? Explain.
4. Does consumption imply the destruction of a good? Explain.
5. Explain the way in which human services may be consumed.
6. Define production.
7. Why may the handling or working over of material objects constitute production?
8. Why may the rendering of human services constitute production?
9. Explain the statement that "productive effort does not necessarily benefit man."
10. What is man's chief rôle in production?
11. Explain the phrase "getting possession of goods."
12. What is the relation of production to the process of changing the form of goods?
13. Show that the storing of goods may be a productive process.
14. In what two ways may transportation be productive?
15. Define the terms: elementary utility, form utility, time utility, and place utility.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter IX.)

1. What was Adam Smith's view of production? (page 117.)
2. Give an example of what Adam Smith considered to be productive labor. (pages 117–118.)
3. Give some examples of what Adam Smith considered to be unproductive labor. (pages 117–119.)
4. What queries were raised by Adam Smith's view of production? (pages 119–120.)
5. Explain the statement that "production may be non-material as well as material." (pages 119–120.)
6. What, in brief, is Professor Roscher's view of production? (page 120.)
7. Give a clear example of unproductive labor. (page 121.)

8. What does Professor Taussig reply to the charge that speculative transactions in general are unproductive? (pages 121–122.)
9. What is one of the aims of the law, and to what extent is this aim achieved? (pages 123–124.)
10. Upon what two things does utility depend? (page 124.)
11. Enumerate some human services which Professor Gide regards as wealth. (page 125.)
12. Explain the statement that man's sole contribution to production consists in the moving of things. (pages 127–128.)
13. What point does Professor Boehm-Bawerk illustrate by the story of the sportsman firing a gun? (page 128.)
14. Is the desire for wealth necessarily selfish? (page 129.)
15. Explain the statement that "wealth is a means to both good and bad ends." (page 130.)

Topics for Investigation and Report

1. Interview the following persons for the purpose of getting their idea of the meaning of the term production: a local business man, a farmer, a day laborer, a socialist. Compare the answers received with the discussion in Sections 134 and 135 of the text.
2. Circumstances under which the manufacture of shoes and clothing would be an unproductive enterprise.
3. Occupations which are permitted by law, but which you believe ought to be prohibited by law.
4. The importance to your community of physicians, lawyers, teachers and other persons who render services rather than dealing in some material commodity.
5. Make a list of the occupations which illustrate man's manipulation of Nature.
6. Make a list of the industries in your section which are engaged in getting goods away from Nature.
7. Make a list of the industries in your section which are engaged in changing the form of goods.
8. Make a list of the industries in your section which are engaged in holding or storing goods.
9. Interview a local grocer as to the effect of cold storage upon the price of eggs at various seasons of the year.
10. Interview a local grain dealer as to the services rendered by the grain elevator.
11. Make a list of the industries in your section which are engaged in transporting goods from one place to another.
12. Nature and function of the "middleman."

13. Types of middlemen in your community or section.
14. Relation of the middleman to the cost of living.
15. The part played by government in industrial production.

Questions for Classroom Discussion

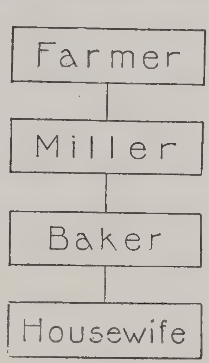
1. What is the distinction between utility and usefulness?
2. Under what circumstances might a free good, such as water, become an object of productive effort?
3. Under what circumstances might the getting of goods away from Nature be an unproductive process?
4. Under what circumstances might the changing of the form of goods be an unproductive process?
5. Under what circumstances might the storing of goods be an unproductive process?
6. Under what circumstances might the transportation of goods from one place to another be an unproductive process?
7. What is meant by the statement that "a thing is not completely produced until it is in the market"?
8. Discuss the statement that "time is money" with reference to the function of the middleman.
9. Are the following activities productive: prize fighting; building war vessels; manufacturing patent medicines; manufacturing imitation diamonds; selling lottery tickets?
10. Discuss the statement that "not skill, but service, should be the basis of reward."
11. What is the difference between the term "middleman" and the term "enterpriser"?
12. To what extent does the law suppress unproductive activities?
13. Discuss the statement that "all persons are productive who are paid for an activity which is permitted by law."
14. Discuss the statement that "one of the great troubles with the day laborer is that he cannot see that purely *mental* exertion may be infinitely more important to society than his own physical exertions."
15. Name some types of individuals whose productivity is doubtful.

CHAPTER X

THE NATURE OF DEMAND

144. Demand and supply. — The two great forces which influence production are demand and supply. Demand and supply are like the two blades of a shears, for while each is important, neither is of service without the other. If there is no demand for goods, the supply of goods is worthless; on the other hand, if a supply of any particular good cannot possibly be secured, it is futile for people to express a desire for that good. When either demand or supply greatly outruns the other for a considerable period of time, industrial maladjustment may be said to exist; when demand and supply are more or less in equilibrium the industrial mechanism is said to be working smoothly.

Let us begin our analysis of demand and supply by inquiring into the nature of demand.



Demand and Supply

With reference to the production of a loaf of bread. The farmer is a source of *supply* for the miller who *demands* wheat to make into flour. The miller, in turn, is a source of *supply* for the baker who *demands* flour to make into bread. In turn, the baker is a source of *supply* for the housewife who *demands* a loaf of bread to feed her family.

145. What is meant by demand. — The economist thinks of demand as something which actually affects the market for goods. Thus desire is not the same thing as demand. Thousands of individuals may desire horses, but if they have no money with which to buy horses, such persons will receive no attention from those who have horses to sell. Beggars may desire to ride, but dealers in horses cannot hear people unless they talk in terms of money.

But a demand does not necessarily exist even when desire is backed up by the ability to pay. I may have the desire for a horse, and I may possess the money with which to buy a horse, yet for various reasons I may never take steps to secure one. And unless I do so, I do not affect the demand for horses.

Demand is the desire for a good, plus the ability and willingness to pay for it. If I want a horse, and have the money to buy one, and am willing to buy a horse at a particular price, a demand for a horse exists.

146. Variations in demand. — The variations in demand may be divided into two classes.

On the one hand, *demand varies from person to person.* Common observation confirms this statement, and common observation indicates the chief reasons for this variation. Because of inborn differences " some people like one thing, and some like another." Of two brothers one may wish to buy musical instruments, while the other may prefer to spend his money for books. Because of early training, individuals may prefer modest clothing to fantastic apparel, or tea to coffee, or overshoes to " rubbers." Many persons with large incomes habitually demand custom-made clothing, imported fruits, hothouse flowers, taxicab service, and other goods which the poor are unable to afford.

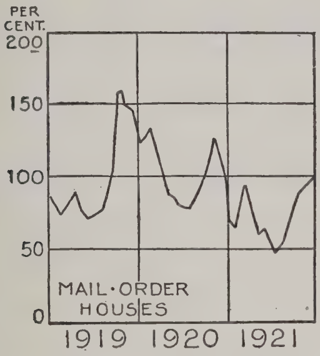
On the other hand, *demand varies in the case of a single person.* Let us develop this second type of variation somewhat in detail.

a. Demand varies in the case of a single person

147. Demand varies from time to time. — Suppose that I am a farmer. I will demand seeds and supplies of machinery in the spring of the year, but not in the winter. I will demand heavy clothing in the winter, but not in the summer. In the fall of the year I will want barrels in which to pack my crop of apples, but at other seasons I will not be " in the market " for barrels. During the harvest season, when I am feeding a numerous gang of hired men, I will demand a great deal of fresh meat daily, but when the harvest is over, this demand will fall off sharply.

These examples will indicate something of the way in which the demands of an individual vary from time to time.[1]

148. Demand varies with the type of goods. — Suppose, now, that I am a laboring man. I need good solid food. This I will demand of my grocer, but I will not bother to ask the price of his imported fruits and fancy sweetmeats. My work is rough and heavy, hence I will demand clothes that are stout and durable, and I will have small use for flimsy or ornamental garments. I am in the market for a victrola because this instrument is easily operated, but I am not in the market for a violin because I have not the money to pay for violin lessons for my children.



Demand Varies from Time to Time

Chart showing the volume of sales made by mail-order houses during 1919, 1920, and 1921. Notice that in all three years demand was excessive toward the end of the year. This is largely because of the increase in buying which takes place in preparation for the Christmas season.

Thus the demands of the individual vary with the type of goods.

149. Demand varies with the power of substitution. — Let us assume that I am a housewife, and that I am trying to feed a good-sized family on a moderate income. My demand for particular goods will depend somewhat upon whether or not there is a good substitute for them. I am accustomed to demand butter regularly of my grocer, but if oleomargarine seems to me almost as good as butter, as well as much cheaper, I may buy oleomargarine. In such a case, of course, my demand for butter declines or even ceases. As there is no good substitute for milk, my demand for that necessity will not be affected by the principle of substitution. But if meat is increasing rapidly in price, I may resort to eggs and fish as substitutes.

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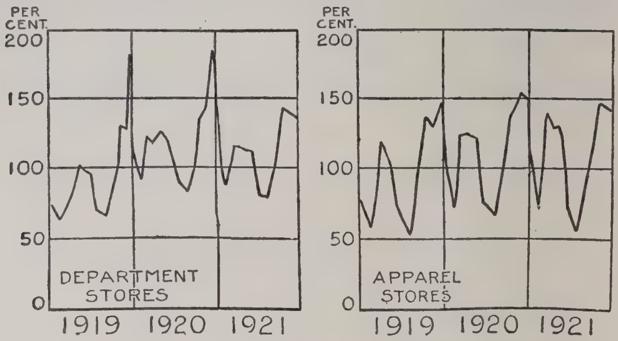
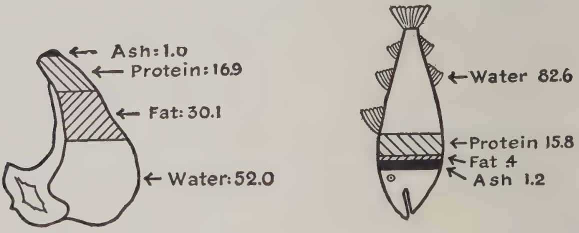
[1] Demand may also vary with weather conditions. See the *Readings*, pages 138–140.



Demand Varies with the Type of Goods

Notice that the demand for the goods sold in department stores during 1919, 1920, and 1921 shows no detailed correspondence with the demand for the goods of "apparel stores" during the same period.



Pork Chop

Cod Fish

The composition of meat and fish is sufficiently similar to permit either of these articles of food to be used as a substitute for the other.

In these and other ways, the demands of the individual are affected by the power of substitution.

150. Demand varies with the income of the individual. — Suppose, in this case, that I am an enterpriser, whose income varies from year to year. Suppose that last year my profits amounted to $10,000, and that accordingly I was in the market for fancy foods, custom-made clothing, opera tickets, and taxicab service. But if this year business is so poor that my income is only $4,000, I cannot afford to demand the goods which I habitually consumed last year, and accordingly my demand for those goods declines. And whereas last year I scorned such goods as inexpensive foods, factory-made clothing, tickets to a modest moving picture theatre, and street car service, it may be that this year my diminished income obliges me to be content with these things.

Thus the demands of the individual are affected by the size of his income.

151. Demand varies with the price of goods. — Demand will also vary with the price of goods. If I am, say, a clerk living on a small salary, I shall have to attend very carefully to the price of goods. In an important sense, my demands will move with price movements. Thus as prices go up my demand for goods will have to decline, but as prices go down I can afford to indulge in a stronger demand for goods.

Of course, the effect of price changes upon my demands will depend upon the nature of the good which is rising or falling in price. Suppose that the good is a box of strawberries, which may be considered a *luxury* to a man of my means. If the price of the strawberries goes up ever so little, I may feel that I must stop buying them, for after all strawberries are not absolutely necessary to my welfare. If the price of strawberries should fall a little, however, I may feel that once more I can occasionally afford to buy a box of strawberries.

But if, on the other hand, the good is a *necessity*, my demand will pay less attention to price changes. Should salt double in price, I may grumble, but I will buy about as much salt as I ever did, because I cannot eat unsalted food. And should the price of salt fall very low, I will not, for that reason, buy much more salt than usual. I had already been using as much as I needed, and I will not double the usual amount of salt in my food simply because it is cheap!

In the case of a relatively *poor man*, thus, demand will change readily as the price of luxuries changes, but it will pay less attention to changes in the price of necessities. In the case of a *rich man*, changes in the price of even the luxuries of life may mean relatively little, and accordingly the rich will tend to demand goods regardless of a small increase or decrease in price.[1]

152. Demand varies with the number of units of a good consumed or purchased. — We come now to the last important type of variation in demand, and one which we must notice very carefully.

Let us notice, to begin with, that with the passage of time, an individual's wants, *as a whole*, may be increasing. Let us suppose that I am more ambitious and industrious than I was last year. Accordingly I demand more in the way of clothing, education, and other goods than I did last year. As time goes on, some of my wants are satisfied, but this only stimulates me to want numerous other goods. *As a whole*, my wants are increasing so steadily and so rapidly that they seem incapable of ever being entirely satisfied.

But when I examine *any particular one* of my wants, I notice that it can be satisfied rather quickly. Suppose, for example, that I am hungry and that I want apples in order to satisfy my hunger. I begin to eat apples, one after another. The first apple may whet my appetite, and may make me want a second apple even more than I wanted the first one. But sooner or later I get less and less satisfaction from each additional apple, until, if I persist, I arrive at the point at which I cannot eat another apple.

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[1] When a slight change in the price of a good is followed by a marked change in demand, demand is said to be *elastic*. When demand responds relatively little, or not at all, to price changes, demand is said to be *inelastic*.

If, instead of actually *consuming* one apple after another, I merely *purchased* one apple after another, the effect would be similar. I might want a first apple so badly that I would give, say, $.25 for it rather than go without it. But having purchased this apple, a second apple might appeal to me less, and accordingly I would be willing to give only $.15 for a second apple. Having now two apples in my possession, I esteem a third apple even less than the second, and so I would be willing to give only $0.5 for a third apple. Thus with the purchase of every additional apple, my demand for apples tends to diminish.

153. The principle of diminishing utility. — This story of the apples illustrates a principle of very great importance, namely, that of diminishing utility. *The principle of diminishing utility may be stated as follows: As identical units of a supply are purchased or consumed, the satisfaction derived from any particular unit tends, after a certain point, to diminish.* To go back to the story of the apples, it is clear that as I buy or eat more and more apples, I get less and less satisfaction from each additional apple. In precise language, this means that the utility of individual apples is diminishing, because each additional apple possesses less power to satisfy my want than was possessed by the preceding apple.

154. The principle of diminishing utility rests upon five assumptions. — When we speak of the principle of diminishing utility as affecting demand we assume five things.

First, we assume that the discussion is limited to the case of a *particular individual.* The demand for apples by people in general may increase steadily, because as some individuals stop buying apples, other individuals come forward with a demand for apples. It is only when we consider the purchase or consumption of apples by an individual that the principle of diminishing utility functions.

Second, this principle must be considered with reference to a *particular good*, and not with reference to goods in general. Thus my demand for goods as a whole may increase with the passage of time, because as some of my wants are satisfied, other wants appear. It is only when we consider one type of good at a time that the principle of diminishing utility operates.

Third, the principle of diminishing utility must be considered with reference to *units of a particular good.* The utility of apples in general may be great or small, but I consume particular apples (or units of apples), and not apples in general. The principle of diminishing utility can affect me only if I consider the purchase or consumption of units of a particular good.

Fourth, the principle of diminishing utility often fails to operate unless the units of a good are consumed or purchased *within a relatively short period.* If instead of consuming six apples, one after another within, say, an hour, I eat the apples at intervals of five hours, the principle of diminishing utility will probably not operate at all. The reason for this is that I have time to get hungry again between apples. Likewise if I buy suits of clothing at intervals of a year, the utility of the successive suits may not diminish, because I wear out one suit before I buy the next. But if I buy one suit after another within, say, two months, the principle of diminishing utility may be expected to operate.

Fifth, the principle of diminishing utility *must be given time* to begin operation. If I am very hungry a fourth apple may have as much utility for me as the third had, and it is perhaps only with the fifth apple that the utility of the apples begins to diminish. If I am a great lover of sweets, I may find a tenth or even a twentieth piece of candy as delicious as the first piece consumed. Yet ultimately candy will pall on me, and the utility of additional pieces will diminish. The principle of diminishing utility applies to practically all goods,[1] provided it is given time to begin its operation.

b. How the economical individual buys goods

155. The individual must harmonize his various demands. — We have seen that the demands of the individual vary from time to time, with the type of goods, with the power of substitution, with income, with price, and with the number of units of a particular good purchased or consumed. Thus the individual is affected by a number of influences, and experiences a variety of potential demands. When it comes to spending his money he finds that these various demands often struggle or compete with one another for satisfaction. In order to spend his money effectively, the individual is obliged to adjust his ideas of what he is going to buy. In other words he must harmonize his various demands. Let us see what the economical individual may do toward accomplishing this end.

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[1] Some economists deny that the principle of diminishing utility applies to money; others maintain that the principle applies to money, as to other goods.

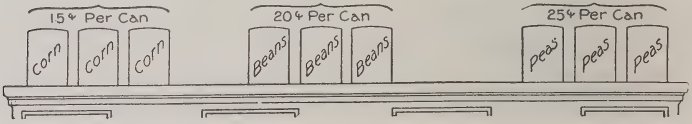
156. The law of greatest net satisfaction. — Let us assume that I am a housewife, with a limited amount of money to spend for food. Different kinds of food compete for my money, and in choosing between these various kinds of food I of course wish to "get the most for my money." If I am economical, I will pay particular attention to three factors. These are, first, the amount of money which I have to spend; second, the utility of the goods; and, third, the price of the goods.

The first factor will limit me to the consideration of certain types of goods. Since I have a limited amount to spend, I cannot consider the purchase of such high-priced foods as hothouse fruits and fancy cuts of meat. In choosing foods with which to feed my family, I must therefore confine my attention to those articles which are modest in price, and which I feel that I can afford.

The second and third factors must be considered together. In making my purchases, I will attempt to weigh the satisfaction which I would derive from the goods against the price of those goods. This done, I shall attempt to buy in such a way as always to secure the greatest surplus of satisfaction or utility over price. In this way I attempt to secure the greatest net satisfaction from each of my purchases. This is in accordance with *the law of greatest net satisfaction, which may be stated as follows: At any particular time, the economical individual will attempt to spend his money in such a way as to secure the greatest surplus of utility over price.*

Let us see how this law operates in actual life.

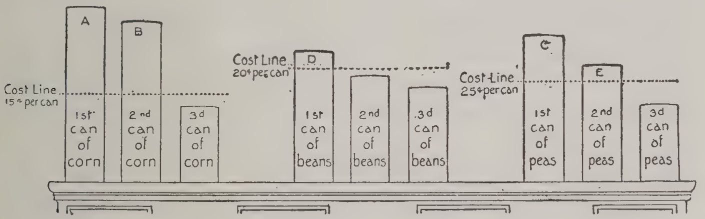
157. The case assumed. — To continue our example, suppose that I am a housewife with a limited amount of money to spend. In order to simplify the discussion let us assume that I confine my attention to three types of goods: corn, beans, and peas. I go to the grocery and see on the counter cans of corn, cans of beans, and cans of peas, arranged somewhat as in the diagram below. All of the nine cans of food are of the same size. Each of the cans of corn is priced at $.15. The beans are a different type and quality of food than corn, and hence sell for a different price. Let us assume that the price of the beans is $.20 a can. The peas are still another type and quality of food, and hence sell for a different price than the corn or beans. Let us assume that each of the cans of peas is priced at $.25.



But although all of the cans of corn are of the same size and quality, the principle of diminishing utility clearly renders these cans of corn of varying attractiveness to me. Thus if I purchased a first can of corn, it would have relatively great utility to me. But if then I purchased a second can of corn, the utility of the second can would be less than that of the first can. Finally, the utility of a third can would be less than the utility of the second can. This is in accordance with the principle of diminishing utility, of course. Thus if I am considering the purchase of successive cans of corn, the second has *less* attraction for me than the first, while the third has *less* attraction than the second. This *decrease* in utility is shown in the diagram on the opposite page, in which the cans of corn *appear* to be of different sizes. It should be understood, of course, that this is merely a pictorial way of showing the diminishing attractiveness to me of successive cans of corn.

The principle of diminishing utility applies also to the cans of beans, and to the cans of peas, as is indicated in the diagram below.

158. How I may secure the greatest net satisfaction in purchasing. — The application of the law of greatest net satisfaction to my problem may be illustrated with reference to the diagram below. In that diagram the decreasing size of the parallelograms indicates the diminishing utility to me of the cans of corn, the cans of beans, and the cans of peas. The dotted line indicates, in each case, the price of the goods. Wherever the dotted line intersects a parallelogram, that part of the parallelogram which projects *above* the dotted line measures the utility to me of the can of goods over its price.



Where the parallelograms do not reach up to the dotted line, the utility to me of a can of goods is less than its price.

In accordance with the law of greatest net satisfaction, I will make my purchases as follows. First I will buy a can of corn, because the area marked "A" is greater than any other area projecting above a price line. This means that I will get the greatest surplus of utility over price if I purchase a can of corn.

Having purchased a can of corn, what will I buy next? According to the diagram I will buy a second can of corn, because by so doing I can secure a greater surplus of utility than would be possible by buying any other can left on the counter.

My third purchase will be a can of peas, because of the cans left on the counter, a can of peas will yield the greatest surplus of utility over price. It is true that I pay $.25 for this can, and that I could buy, instead, a can of corn for $.15 or a can of beans for $.20. But although corn and beans are lower-priced than peas, they are not as "good a bargain," and hence I "get more for my money" if I buy peas. In the technical language of economics, the surplus of utility over price is, at this point, greatest in the case of a can of peas.[1]

In accordance with the law of greatest net satisfaction, my fourth purchase will be a can of beans.

Perhaps I will stop buying at this point, because I am running short of money. But if I think it desirable to spend more money for these types of food, I will buy a second can of peas, because, of the cans which are left on the counter, this is the only purchase which will give me a surplus of utility over cost.

Here I will surely stop buying, because according to our diagram I can make no more purchases which will yield me an amount of utility which is in excess of the price. I will not buy a third can of corn, a second can of beans, a third can of beans, or a third can of peas, because while each of these cans of food has utility to me, this utility is less than the price. From my standpoint at least, these cans "aren't worth the money" asked for them.

It will be noticed that in the diagram the area marked "D" is very little larger than the area marked "E." This means that after I have purchased three cans of food, a can of beans seems to be only a little more desirable than a can of peas. In actual life there are many such cases, as for example, when housewives hesitate between buying, say, a pound of meat or a dozen eggs, uncertain as to which is the better investment.

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[1] We are assuming that I can afford to buy any of the cans on the grocer's counter. Suppose, on the other hand, that there is also a crate of strawberries on the counter marked $1.00. This might be an abnormally low price for a crate of strawberries, and the purchase of strawberries at this price might be a great bargain, because of the very great surplus of its utility over the price. Still, if I cannot afford to spend a dollar for fruits of any kind, I will not purchase the strawberries. Similarly a poor man would have to reject a chance to buy a $10,000 automobile for $1,000 if he could not raise $1,000.

To make a proper decision in such a case requires careful thinking.[1]

159. Summary and forecast. — Demand and supply are the two great forces which affect production. Demand means the desire for a good, plus the ability and willingness to pay for it. Demand varies widely from person to person, as well as in the case of a single person. The demands of the individual vary from time to time, with the type of goods, with the power of substitution, with the income of the individual, with price, and with the number of units purchased or consumed. This last type of variation brings us to the principle of diminishing utility, which means that as identical units of a supply are purchased or consumed, the satisfaction derived from any particular unit tends, after a certain point, to diminish. However, this principle assumes that we speak in terms of a particular individual, that we speak of a particular good and not of goods in general, that we speak of units of a particular good and not of that good in general, that the units are purchased or consumed within a relatively short period of time, and that the principle is given time to begin operation.

In harmonizing his various demands, the economical individual applies the law of greatest net satisfaction, which may be stated as follows: At any particular time, the economical individual will attempt to spend his money in such a way as always to secure the greatest surplus of utility over price.

In the next chapter we shall discuss the second great force which affects production. This is supply.

Questions on the Text

1. What are the two great forces affecting production?
2. Define demand.
3. Illustrate the variations in demand from person to person.

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[1] In actual life, the average consumer does not purchase units of goods one after another as we have described, but calculates what purchases he will make and orders them at a single time. This amounts, however, to a process of mental calculation which is roughly similar to our application of the law of greatest net satisfaction, and hence our analysis is substantially accurate.

4. Illustrate the way in which the individual's demands vary from time to time.
5. Illustrate the way in which the individual's demands vary with the type of goods.
6. Illustrate the way in which the individual's demands vary with the power of substitution.
7. Illustrate the way in which the individual's demands are affected by the size of his income.
8. Assuming that the purchaser is relatively poor, will the effect of price changes be different in the case of luxuries than in the case of necessities? Explain.
9. What difference, in this regard, is there between a poor man and a rich man?
10. Illustrate the statement that "demand varies with the number of units of a good consumed or purchased."
11. State the principle of diminishing utility.
12. Upon what five assumptions does this principle rest?
13. What is the law of greatest net satisfaction?
14. Explain in detail how this law works out in actual life.
15. How does the economist explain the fact that a housewife may hesitate between buying, say, a pound of meat or a dozen eggs?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter X.)

1. Contrast man's wants with the wants of the lower animals. (page 133.)
2. Contrast the value placed upon a cup of water by a man dwelling beside a spring with the value attributed to a cup of water by a traveller in the desert. (page 135.)
3. What is the relation between wants and production? (pages 136.)
4. What is meant by saying that in one sense production is the "effect of a cause"? (page 136.)
5. Describe, briefly, the rise of the radio industry. (pages 136–137.)
6. Sketch, briefly, the development of the radio business in various parts of the country. (pages 137–138.)
7. Why were dealers unable to gauge the demand for radio equipment accurately? (page 137.)
8. Trace the effect of bad weather upon the demand for cotton. (pages 138–139.)
9. What is the relation between the boll weevil and the demand for cotton? (page 139.)
10. Describe the influence of the weather upon the prices paid for cotton. (pages 139–140.)

11. Discuss the statement that "wants are limited in intensity." (page 141.)
12. Discuss the statement that "wants are complementary." (pages 141–142.)
13. What is the effect of habit and heredity upon wants? (page 142.)
14. Can you explain what is meant by marginal utility? (pages 142–144.)
15. What is the significance of the concept of marginal utility? (pages 142–145.)

Topics for Investigation and Report

1. Illustrate, with reference to conditions in your community, the statement that "demand varies from person to person."
2. Attempt to classify the people of your community into groups on the basis of the goods which they consume.
3. Variations in your demand for goods from time to time.
4. Extent to which your demand varies with the type of goods.
5. The effect upon your demand of the power of substitution.
6. The probable effect of a strike upon a laborer's demand for goods.
7. The probable effect of an increase in wages upon the demands of a laborer.
8. Study market condition in your community in the endeavor to trace the effect of price changes upon the demand for goods.
9. The significance of the term "elasticity of demand."
10. Your personal experience with the principle of diminishing utility.
11. The meaning of the term "marginal utility."
12. Examples of people who apparently use little judgment in harmonizing their demands.
13. Examples of people who make their purchases wisely.
14. Suppose that you received a gift of $1000. Make a list of the goods which you would *like* to buy with this money. Make a list of the goods which you think you *ought* to buy with this money. Compare the two lists.
15. Talk over, with your mother or father, the extent to which the law of greatest net satisfaction applies to actual life.

Questions for Classroom Discussion

1. Discuss the statement that "desires are always in the process of growing up to be demands."
2. To what extent is our demand for goods dictated by feeling, rather than by reason?
3. To what extent is our demand for goods dictated by the desire

to stand well in the estimation of our neighbors, rather than by our actual needs?

4. What is meant by saying that " a luxury for one person may be a necessity for another "?
5. What is the effect of war upon the type of goods demanded by people?
6. Is the amount of money which an individual is willing to pay always an accurate measure of the intensity of his want?
7. How may producers stimulate the demands of people?
8. Can you explain the statement that " demand varies as the utility of the good varies "?
9. Does the utility of all goods diminish at the same rate for a single individual? Explain.
10. Does the utility of a particular good, say, oranges, diminish at the same rate for all individuals? Explain.
11. What is the relation between the price of oleomargarine and the dairy industry?
12. Which of his customary purchases would the average laboring man probably curtail if his wages were diminished by 25 per cent? Which purchases would he omit altogether?
13. To what extent is the law of greatest net satisfaction actually applied by individuals?
14. How does an individual know when he is applying this law effectively?
15. Many individuals would not take the trouble to apply this law even though it were explained to them, and its advantages proven. Why?

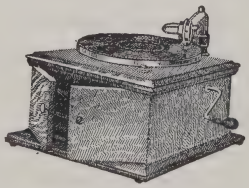
CHAPTER XI

THE NATURE OF SUPPLY

a. The meaning of capital

160. Wealth may be used for two purposes. — Wealth may be used for two purposes, depending, ultimately, upon the will of its possessor. To illustrate this point, let us suppose that I am a man of some wealth. I possess, among other goods, a house in addition to my private dwelling, a large plot of land, an automobile, and a considerable sum of money in the bank. In what two ways, then, may I use these forms of wealth?

(*a*) *I may use this wealth to satisfy my desires directly.* First of all, I may use these forms of wealth to satisfy my wants *directly*. Suppose that I decide to do this. I use my extra house as a summer residence. I turn my land into a flower garden with an ornamental fountain in the center. I use my automobile for pleasure-riding, and I spend my money for food, clothing, and entertainment. In all of these ways, I am using this wealth for the direct satisfaction of my wants. I am consuming these goods. Because I use them to satisfy my wants directly, these goods may be called *consumers' goods.*



WHEN USED IN A HOME, THE VICTROLA IS A CONSUMER'S GOOD.

(*b*) *I may use this wealth to produce more wealth.* On the other hand, I may choose to use this wealth, not for the direct satisfaction of my wants, but for the production of more wealth. Suppose that I decide to do this. Instead of using my second house as a summer residence for myself, I rent it to a tenant.

I use my land to grow wheat for the market. My automobile I hire out for use as a taxicab, and the money which I have in the bank I use to buy tools and seed, and to pay laborers to work my land.

In all of these cases I am refraining from direct enjoyments *now*, in order that I may use my wealth to produce more wealth. Of course, the wealth so produced I expect some day to use for the direct satisfaction of my wants. But I am willing to forego the consumption of this wealth *now* in order to have *more* wealth to consume in the *future*. Those goods which I use, not for purposes of direct consumption, but to produce more wealth, may be called *producers' goods*. It is producers' goods, rather than consumers' goods, to which we must now give our attention.

161. A definition of capital. — In discussing the way in which the Indian got a living, we said that man devises certain instruments, broadly known as tools, for the purpose of helping him get a better living than he could get with his bare hands. In more precise language these " tools " may be called capital. *Capital may be defined as inclusive of everything which man has devised for the purpose of aiding him in production.* Some common forms of capital are shops, factories, ploughs, ships, railroads, engines, work horses,[1] stores, fences, books, and money.[2]

But are not producers' goods the same thing as capital? Not quite. Capital includes all producers' goods, *except land*. Land is a producers' good, because it may be used to produce more wealth, but it falls outside of our definition of capital because it is a gift of Nature and was not devised by man. It may seem a little confusing to exclude land from our definition of capital, for obviously land is a very important aid in production. But it is this very importance which obliges us to exclude it from the class of capital. Land is so important, and it has so many unique characteristics, that it is best considered in a class by itself. Capital, then, includes all producers' goods, except land.

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[1] Our domestic animals have been so much improved by breeding that they may be regarded as a product of human industry.

[2] A more detailed list of the forms of capital will be found in the *Readings*, pages 151–153.

162. The terms "capital" and "money" are often confused. — The terms "capital" and "money" are often confused, and yet the relation of these two things is simple and definite.

In the first place, money may be a form of capital. Money, as we saw earlier in the text, is a tool which man has devised and improved in order to facilitate the exchange of goods. By enabling the productive mechanism to work more easily than it would otherwise work, money may aid greatly in production. According to our definition of capital, then, it may be a form of capital.

In the second place, however, money may never be more than *one* form of capital. Capital includes everything which man has devised for the purpose of aiding him in production, and, as we have seen, man has devised numerous aids in production besides money. For example, railroads, ships, and machines are forms of capital. Thus while money used in the productive process is a form of capital, it is only *one* form of capital.

In the third place, all capital is often measured in terms of money.[1] When we wish to tell some one how much capital we have, we do not begin to enumerate the buildings, work horses, machines, ploughs, and numerous other forms of capital which we possess. On the contrary we estimate the money value of all of the forms of capital which we possess, and speak to him in terms of money. Thus if our work horses, buildings, and other forms of capital are valued at a total of $10,000, we simply say that we have a capital of $10,000. A man who says that his business is "capitalized at $200,000," may mean that the sum of $200,000 has been invested in the various forms of capital utilized by that business.

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[1] Likewise money is used as a measure of *all* forms of wealth. Thus a man who is "worth" $50,000 possesses goods which, measured in terms of money, are valued at $50,000.

In the fourth place, money is a means of securing control of other forms of capital. In colonial times a farmer desiring a piece of capital, such as a plough, might either make it himself, or might exchange corn or other produce for a plough made by a neighboring blacksmith. But under our present industrial system, control over capital is generally secured by means of money. Thus a modern farmer does not generally make his own plough, nor does he exchange produce for this form of capital. Instead, he generally secures a plough by paying money for it. Thus money is a means whereby we secure control of other forms of capital.

HARVESTING RICE IN LOUISIANA

The machine and work animals shown in this picture are forms of capital.

There is no reason, then, for confusing the terms "capital" and "money." Money may be one form of capital, but only one form. Money is a handy measure of capital (as well as of other goods), and it is also a means of securing control of other forms of capital.

163. The significance of capital. — The amount of capital within a country has an important bearing upon that nation's prosperity. If most of our wealth is being used as consumers' goods, so much wealth is incapable of being used as capital. This means that it is incapable of being used to produce more wealth. Wealth used as consumers' goods yields a great deal of present satisfaction, but it does not safeguard our future supply of goods.[1]

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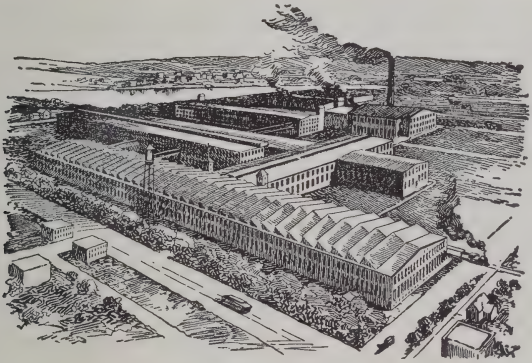
[1] For the effects of an extensive use of capital upon the productive process, see the *Readings*, pages 153–157.

If, on the other hand, a large proportion of our wealth is used to produce more wealth, then our material prosperity tends to increase. In such a case, there is provision for future consumption, as well as for consumption at the present time. Eventually the nation's wealth will depend upon the extent to which we produce more than we consume. Since capital is one of the chief means of producing more wealth,[1] it becomes of the greatest importance to inquire into the method by which capital may be formed or increased.



A Cotton Mill

Representing the productive use of large amounts of various forms of capital.

b. How capital is formed

164. How capital may be formed under primitive conditions. — Let us begin by assuming a very simple case. Suppose that I am a pioneer in early America. I wish to plant corn in an open meadow in front of my cabin, but I have no tools. With the toe of my boot I laboriously scrape shallow holes in the surface of the earth, and drop in the grains of corn. On account of the crudeness of this form of corn culture the crop is very poor. I realize that I will be able to produce more corn if I have some tools. These I secure as follows.

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[1] Another means of producing more wealth is land, which together with capital, constitutes producers' goods.

First step: I produce a surplus of food. I mean by this that I go into the woods with my gun and there hunt skilfully and rapidly all day long. By this means I get enough animal food to last me, not only for the day which I spend hunting, but for three additional days as well. With this surplus supply of food, I return to my cabin.

Second step: I use my surplus food to support me while I make tools. Since I have stored three days' food in my cabin, I will not have to use any of the time of those three days in searching for food. Accordingly I use all of my time during those three days to make tools. I make myself a wooden spade, and also construct a rake, a hoe, and a rude plough. Thus the accumulation of a surplus of food has enabled me to secure four tools. These tools are forms of capital, and their function is to help me get a better and larger crop of corn than I could otherwise have got.

Such may be the origin of capital under the simplest conditions.[1]

165. How capital may be formed under modern conditions.— Fundamentally the formation of capital is everywhere the same. Under modern conditions, as under primitive conditions, the formation of capital involves two steps. There is one difference, however. This is that the division of labor has split up the process of capital formation, so that this process now generally involves, not one person but at least two. Let us illustrate this point by assuming a relatively simple case.

First step: the production of a surplus. Suppose that I am a physician. I earn, say, $10,000 a year, and since my living expenses are only $8,000, I have a yearly surplus of $2,000. I realize that many individuals use their surplus wealth to establish themselves in industry, and in that way make their surplus wealth produce more wealth. But being a professional man, and unfamiliar with industrial conditions, I have no desire to set myself up in an industrial enterprise. Suppose that I live in a fishing community, and that there is an opportunity for some enterprising man to make money by building boats to be rented or sold to fishermen. I hear vaguely of this opportunity, but I have no direct interest in the enterprise. However, I am directly interested in getting some benefit out of my $2,000, and so I take this sum to a bank and deposit it there. The bank will pay me a small sum for the use of this money, and I am satisfied.[1]

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[1] For another example of the formation of capital under primitive conditions, see the *Readings*, pages 149–151.

Depositors at a Bank

A step in the formation of capital under modern conditions.

Second step: this surplus is used in the process of creating capital. Suppose that in my community there is a Mr. Hansen, a clever boat-builder, but a man without funds. He understands the possibilities of boat-building, and is desirous of engaging in it. Accordingly he goes to the bank and borrows a sum of money. Let us assume, for the sake of clearness, that the sum borrowed by him includes the $2,000 deposited there by me. With the borrowed money, Mr. Hansen buys tools and lumber, and establishes himself as a boat-builder. Soon he has built a number of fishing boats, which fishermen may now hire or buy for the purpose of catching fish. These boats are capital, because they constitute instruments which have been devised for the purpose of increasing the amount of wealth in the community. In this case wealth consists in fish.

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[1] For an explanation of why a bank can afford to pay for the use of money, see Sections 179–184.

Though Mr. Hansen and I may never meet, through the agency of the bank we have unconsciously coöperated in the formation of capital. As the result, first of my saving a surplus amount of money, and second of his using that money in the process of manufacturing boats, there has been an increase in the supply of productive instruments in the community.

Fleet of Fishing Boats

These boats are capital.

166. Two cautions. — Two cautions may be pointed out before we leave the subject of how capital is formed.

In the first place, the above example simply illustrates the *principle* involved in the formation of capital under modern conditions. In actual life the formation of capital may be much more complex. But however complex this process may be, the fundamental principle is as we have stated it. And everyone whose activity helps, directly or indirectly, in any such process as we have described, is aiding in the formation of capital. Thus, in the above illustration, the banker is aiding in the formation of capital, just as clearly as is the boat-builder or the physician.

In the second place, there is no formation of capital until the instruments which constitute capital are themselves actually in existence. We have assumed that the saving of $2,000 by the physician was a first step in the formation of capital, but this is true only because that very sum of money was actually employed in the process of manufacturing boats. If that sum had been hoarded by the physician, or if the bank had loaned it to a borrower who spent it for consumers' goods, its being saved by the physician would not have constituted a first step in the formation of capital.

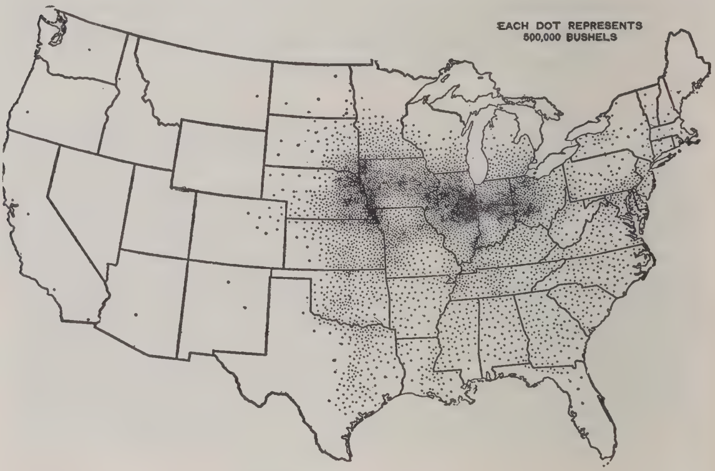
c. *Variations in the cost of production*

167. The cost of producing goods varies. — Capital is used to increase the amount of goods in existence. Measured in terms of money, the effort required to bring goods into marketable form is known as their "cost of production." The cost of producing goods varies greatly. First, it varies with the type of goods; second, it varies from producer to producer, in the case of a single type of good; and third, it varies from unit to unit of the same good, produced by a single concern. Let us notice, briefly, these three types of variation in the cost of production.

168. Different types of goods may be produced at different costs. — Obviously, it costs more to produce some types of goods than to produce others. Automobiles, mouse-traps, tables, fur-coats, books, ice tongs, the cost of producing such different types of goods may vary greatly. Some reasons for this difference are variations in the cost of the raw materials, variations in the amount of raw materials required, and variations in the amount and type of labor required.

Thus an iron snow shovel may cost more than a wooden snow shovel, partly because iron may be a *more costly raw material* than wood. A suit of clothes for a man costs more than a suit of clothes for a small boy, for even if the same kind of material is used, there is *more material* in a man's suit than in a small boy's suit. A delicate hand-painted china dish costs more to produce than a common dish, not only because better material may have been used, but also because a greater amount and a *more highly-skilled type of labor* is necessary in order to produce the hand-painted dish.

169. A particular type of good may be produced at different costs by different enterprisers. — In order to illustrate this type of variation in the cost of production, let us assume that a number of enterprisers are engaged in manufacturing a particular type of automobile. Although the automobiles produced by the different enterprisers may be practically identical (save for the name), the cost of producing the cars may vary from manufacturer to manufacturer.



Distribution of Corn

Our supply of corn is produced by a large number of farmers in different parts of the country. The cost of production among these numerous farmers may vary greatly.

One manufacturer may enjoy the advantage of cheap water power, or his factory may be very close to a coal mine. In such a case, this manufacturer may pay for his power less than his competitors pay. Some manufacturers may be closer to the source of their raw materials than their competitors, or closer to the market for their finished product. In either case it may be that they can save enough on transportation charges to lower their cost of production markedly. Some manufacturers may be more skilful than others in buying raw materials, or in bargaining with their laborers, and hence enjoy a lower cost of production than is possible for other enterprisers. Some enterprisers may excel their competitors in forecasting the market for automobiles, or in disposing of used or defective cars. As we saw in Chapter VII, a large concern may practice economies which are beyond the power of a smaller business, and hence a large concern may enjoy a relatively low cost of production.

Due to these and other influences it may happen that goods which are practically identical are produced at different costs by different concerns.

170. Different units of a particular good may be produced at a different cost by a single concern. — Let us notice, finally, that a single concern may produce different units of a particular type of good at a different cost.

(*a*) *Units of a particular type of goods may be produced at increasing cost.* This type of variation in the cost of production may be illustrated by mining and fishing.

In mining, for example, the first ore to be taken out is generally near the surface of the earth. Suppose that this ore is so easily secured that the cost of production is $3.00 a ton. But gradually the ore near the surface is exhausted, and the miners are obliged to go further and further into the earth. It becomes necessary to build shafts and roof supports, to pump water out of the mine, and otherwise to spend money. All this means that the cost of mining a ton of ore increases.

Fishing may illustrate the same principle. Along the shores of a newly-settled country it may happen that fish are very plentiful. Naturally the first supplies of fish to be used are those nearest the shore, because they are most easily secured. Being easily secured, the cost of getting the fish is relatively low. But with the exhaustion of these supplies of fish, the fishermen are obliged to go further and further from shore, to use more and better equipment, and to spend more time and energy, all without getting, perhaps, even as many fish as formerly. Thus the cost of production markedly increases.

(*b*) *Units of a particular type of goods may be produced at decreasing cost.* A homely example will illustrate the principle of decreasing cost. A photographer will charge me, say, $5.00 for one photograph, but for twelve photographs he will charge me, not $60.00, but only $15.00. He reduces the charge per photograph with an increase in the number of photographs purchased. He does so because the cost of producing each photograph declines as he produces more and more of them. He must use a photographic plate whether he is to print one or a hundred photographs; he must retouch the plate with care, regardless of whether I wish one or a hundred photographs from it. If he prints and sells me only one photograph, he must charge me, say, $5.00, because only that amount will cover the cost of production and allow him a profit. But if the photographer can print twelve photographs from a single plate, he can divide the cost of the plate and its retouching among twelve photographs, and as a result he can sell me the twelve photographs for $1.25 each, and still make a profit.

A Colorado Gold Mine

The cost of getting a given amount of gold from this site may vary widely from time to time.

This is because the cost of producing individual photographs declines with an increase in the number produced.

The tendency to decreasing cost appears in manufacturing, transportation, and other industries in which there is a tendency toward large-scale production. To assume a very simple case, it may appear in shoe manufacturing somewhat as follows: An enterpriser establishes a shoe factory, buys raw materials, secures modern shoe machinery, employs laborers, and sets to work. Under these conditions he may produce a pair of shoes at a cost of $4.00. Suppose that the demand for this enterpriser's shoes increases, and that he wishes to increase his output. He finds that he can produce a great many more shoes without adding to the amount of machinery which he already has, and without increasing the size of his factory. In increasing his output, therefore, he can spread the cost of the machinery and factory maintenance over more and more shoes, with the result that the cost of producing a particular pair of shoes decreases from $4.00 a pair, to, say, $3.75 a pair.[1]

171. Summary and forecast. — Wealth may be used for two purposes. On the one hand, it may be used to satisfy wants directly, in which case it may be known as consumers' goods. On the other hand, it may be used to produce more wealth, in which case it is producers' goods. Capital includes everything which man has devised for the purpose of aiding him in production. Capital includes all forms of producers' goods, except land. Money may be a form of capital, but only one form of capital. However, money is a measure of other forms of capital, and is also a means of securing control of other forms of capital. In primitive life a single individual may carry through the whole process of capital formation, but under modern conditions the formation of capital is divided among at least two different individuals. We illustrated the formation of capital by the saving of $2,000 by a physician, the deposit of this sum in a bank, its being loaned by the bank to a boatbuilder, and its use by the latter in the process of making boats for use in fishing. Lastly we noticed the variations in the cost of producing goods. We saw that the cost of producing different types of goods may vary greatly, and that a particular type of good may be produced at different costs by different enterprisers. Furthermore, units of a particular good may be produced at a different cost by a single concern. The units may be produced at increasing cost, as in the case of fishing and mining, or at decreasing cost, as in the case of a growing shoe-manufacturing concern.

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[1] For the relation of the principle of decreasing cost to natural monopoly, see Chapter XXIX.

Our survey of demand and supply is now complete, and we may turn in the next chapter to a discussion of the mechanism by which demand and supply are enabled to get together and to work upon one another.

Questions on the Text

1. What are consumers' goods?
2. What are producers' goods?
3. Define capital.
4. What is the relation of producers' goods to capital?
5. Explain clearly the statement that money may be one form of capital, but only one form.
6. What is meant by saying that " all capital is often measured in terms of money "?
7. Illustrate the statement that money enables us to secure control of other forms of capital.
8. What is the significance of capital?
9. Explain carefully the way in which capital may be formed under primitive conditions.
10. What is the difference between the way in which capital is formed under primitive conditions and the way in which it is formed under modern conditions?
11. Explain the part which a physician may take in the formation of capital.
12. Explain the part played by the bank in this example of the formation of capital.
13. Explain the part played by the boat-builder in the formation of capital.
14. Explain the statement that " there is no formation of capital until the instruments which constitute capital are themselves actually in existence."

15. Illustrate the statement that different types of goods may be produced at different costs.
16. What are the chief reasons why a particular type of good may be produced at different costs by different enterprisers?
17. Explain clearly the principle of increasing cost, and give an illustration of how this principle works out.
18. Explain decreasing cost by the example of the photographer.
19. Show how the principle of decreasing cost may operate in the case of a growing shoe-manufacturing establishment.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XI.)

1. What is meant by saying that "labor is the price of all good things"? (page 147.)
2. What is the relation of human labor to such forms of natural wealth as bubbling springs of water or petroleum, the growing forest, etc.? (pages 148–149.)
3. Summarize Professor Walker's story of how capital may be formed in a primitive fishing community. (pages 149–151.)
4. Why is the present industrial system sometimes called the "capitalistic system"? (page 151.)
5. Name some classes of goods which Professor Roscher enumerates as capital. (pages 151–152.)
6. What is meant by the term "incorporeal capital"? (page 152.)
7. Explain the statement that "most capital is in a state of constant transformation." (pages 152–153.)
8. Illustrate the lengthening of the productive process in the case of a peasant in need of water. (pages 153–154.)
9. Illustrate the lengthening of the productive process with respect to mining. (page 154.)
10. Describe the roundabout method of getting a pair of spectacles. (pages 154–155.)
11. Name two important consequences of the roundabout method of production. (page 155.)
12. Illustrate Professor Boehm-Bawerk's statement that "every lengthening of the roundabout process is accompanied by a further increase in the technical result." (pages 155–156.)
13. Explain the statement that "every lengthening of the process does not necessarily mean a *proportional* increase in the product." (page 156.)
14. What is the relation of capitalistic production to future demand? (pages 157–158.)

15. Describe the way in which a business firm might adjust its purchases of raw materials to future business conditions. (pages 158–159.)

Topics for Investigation and Report

1. Examples, in your community, of the use of wealth as consumers' goods.
2. Examples, in your community, of the use of wealth as producers' goods.
3. Forms of capital which are important in the industrial life of your community.
4. Interview a local business man on the relation between capital and money. Compare his statements with Section 162 of the text.
5. Make a list of the ways in which wealth may be wasted.
6. The difference between saving and hoarding.
7. Some examples of capital formation in your community.
8. Interview a local banker as to what becomes of the money which customers of the bank leave with him.
9. The relation of capital formation to national progress.
10. Enumerate some examples of variations in the cost of producing different types of goods.
11. Make a study of industry in your community for the purpose of discovering to what extent the same type of good is produced at different costs by different enterprisers.
12. Some examples in your community of production at increasing cost.
13. Some examples in your community of production at decreasing cost.
14. Examples in which some phases of a business show a tendency toward increasing cost, while other phases of the same business show a tendency toward decreasing cost.
15. Causes for the variation in the cost of producing goods, other than those enumerated in the text.

Questions for Classroom Discussion

1. To what extent is monopoly a cause of the scarcity of goods?
2. How many reasons can you give why you would not care to devote yourself to the production of goods which are now in demand in your community?
3. Discuss the statement that " whether wealth is consumers' goods or producers' goods depends merely upon the will of the individual."

4. Discuss the statement that "saving is the postponement of consumption."
5. Discuss the statement that "spending makes business good because it keeps money in circulation."
6. Sometimes luxurious expenditure, such as the expenditure of large sums for elegant entertainments, is defended on the grounds that it gives employment to milliners, florists, caterers, chauffeurs, and other laborers. Discuss.
7. Is money *always* capital?
8. Discuss the statement that "the value of a man is measured by the excess of his production over his consumption."
9. What per cent of bank loans are for purposes of production rather than for purposes of consumption?
10. What are the chief reasons why people save money?
11. Discuss the statement of a certain manufacturer that "by doubling his output he could more than double his profits."
12. Discuss the statement of a certain manufacturer that "it doesn't pay to produce too much."
13. The various ways in which the term "capitalization" is used.
14. Should a banker inquire into the reason or purpose for which a prospective customer wishes a loan?
15. What part does mere luck play in the variations in the cost of production?

CHAPTER XII

THE FUNCTION OF MONEY AND CREDIT

172. The human representatives of demand and supply. — We have discussed at some length the two forces affecting production: demand and supply. In such a country as the United States there are millions of people who are daily demanding food, clothing, tools, and innumerable other goods. These people represent demand, and constitute a group of potential buyers. Buyers are the human representatives of the force which we have called demand.

BUYERS AND SELLERS COMING TOGETHER IN A MARKET

In such a country, too, there are innumerable individuals who have goods which they are willing to dispose of for a satisfactory price. These persons represent supply, and constitute a group of potential sellers. Sellers are the human representatives of the force which we have called supply.

Most normal adults are both buyers and sellers, though of different types of goods. A farmer sells wheat, and buys machinery and numerous other goods. A miller buys wheat and sells flour. A baker buys flour and sells bread. The laborer buys bread and sells his labor to an employer. Every self-supporting individual is to some extent both a buyer and a seller of goods.

a. Money

173. Money is a tool upon which buyers and sellers depend. — Money is generally defined as anything that passes freely from hand to hand as a medium of exchange. *For the purpose of clarifying our discussion, let us assume, for the time being, that money consists entirely of metal coins, such as gold, silver, nickel, and copper coins.*[1]

As we saw in an earlier part of the text, the function of money is to enable buyers and sellers to deal with one another effectively. Money enables buyers and sellers to *handle* their business, just as a labor force enables enterprisers to handle the product of a factory. Indeed, the supply of money in a community might be compared to the labor force of a factory. If the output of the factory doubles, then it will be necessary to increase the number of laborers whose business it is to handle the factory's product. Similarly, if the amount of business between buyers and sellers doubles, the effective transaction of business requires that there be an increase, either in the amount of money, or in things which may be used in the place of money.

174. The nature of a bank. — Just as there are in modern industry individuals who specialize in farming, or in shoe manufacturing, or in writing advertisements, so there are individuals who make it their chief business to deal in money and credit. In such a country as the United States, the volume, forms, and complexities of money and credit have become so great that many thousands of individuals devote all of their working time to handling this great circulating medium.

The bank has been developed to aid these persons in their work.[2] A number of individuals may secure a charter from the

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[1] Paper money will be explained later in this chapter.

[2] For a description of the origin of banking, see the *Readings* pages 165–167.

State or Federal government to deal in money and credit. They then establish themselves in a building which they call a *bank*, and to which we resort when we wish their services. There is nothing mysterious about a bank, and nothing about a banking business which is essentially different from any other type of business. Just as other business houses deal in potatoes, steel, or clothing, the bank deals in money and credit. A bank must employ a labor force, advertise for business, and seek to gain the good-will of the public, just as a restaurant or a department store must do these things. The hardware in a hardware store, and the candy in a confectionery, represent the goods in which these stores deal. Similarly the piles of coin and bundles of bills and other papers which we sometimes see in a bank are part of the goods in which the bank deals.

EXTERIOR VIEW OF A BANK
Commonwealth Trust Co., Boston, Mass.

175. Types of banks. — There are several types of banks, each of which is intended primarily for a particular purpose.[1]

Of these several types of banks, the *savings bank* is perhaps the most familiar to young people. A savings bank will receive deposits of one dollar or more, and will pay interest to the persons who deposit these amounts.[2] Generally, sums which have been deposited in a savings bank cannot be drawn out by check.[1] Indeed, the savings bank may require of the depositor a formal written notice of several days before deposits may be withdrawn.

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[1] The classification of banks offered here is on the basis of *function*. If banks are classified, not on the basis of their function, but on the basis of the *source of their charter*, they may be called either state or national.

[2] In this case, interest is an amount which is paid for the use of money.

In many states there are banking institutions known as *trust companies*. The trust company derives its name from the fact that one of its chief functions is to administer funds which have been placed in its care, and which it has been directed to hold "in trust" for certain designated persons. Trust companies often take care of valuable papers which individuals prefer not to have about their persons or in their homes. The trust company also investigates the legal title to land and other forms of property. Another function of the trust company is to take care of the wills which persons often make out in anticipation of their death, and to see that those wills are executed in accordance with the wishes of the deceased.

A third type of bank is the *commercial bank*. The commercial bank derives its name from the fact that it deals largely with business men engaged in commercial and mercantile operations. It is primarily of the commercial bank with which we are here concerned. For this reason the term "bank," as used in the remainder of this chapter, will be understood to refer to the commercial bank.

176. People deposit money with the bank. — The essential function of the bank will appear most clearly if we confine ourselves, for the time being, to its dealings in metallic or coined money. Banks are operated in accordance with laws which aim to protect the community against dishonest and careless bankers, and we shall assume that the bank in question is known in the community as a reliable institution.

People who have saved sums of money, generally bring those sums to the bank for safe-keeping, because they realize that thieves are likely to steal money which is kept about the house. People are also encouraged to bring their savings to the bank because the bank is willing to pay for the privilege of using these funds. A bank will pay the depositor, say, $5.00 a year for the privilege of using $100. This means that the bank pays the depositor interest at the rate of 5 per cent.

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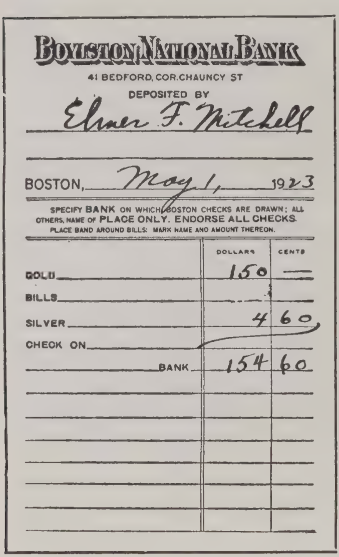
[1] A check is a written order from a depositor in a bank, ordering that bank to pay a designated sum to some designated person.

177. The bank keeps only a part of this money in its vaults. — The bank now has possession of the $100, and in return the depositor has received a check book from the bank. The depositor may now write out a check whenever he likes, and for any amount up to $100. Thus an individual who has deposited money in a bank in the form of a checking account is entitled to draw out that money whenever he likes.



BOYLSTON NATIONAL BANK
41 BEDFORD, COR. CHAUNCY ST
DEPOSITED BY
Elmer F. Mitchell

BOSTON, May 1, 1923

SPECIFY BANK ON WHICH BOSTON CHECKS ARE DRAWN; ALL OTHERS, NAME OF PLACE ONLY. ENDORSE ALL CHECKS. PLACE BAND AROUND BILLS: MARK NAME AND AMOUNT THEREON.

	DOLLARS	CENTS
GOLD	150	—
BILLS		
SILVER	4	60
CHECK ON		
BANK	154	60

A BANK DEPOSIT SILP

On May 1, 1923, Elmer F. Mitchell fills out this slip and passes it to the Receiving Teller of the Boylston National Bank, together with the $150.00 in gold coin and the $4.60 in silver coin which he wishes to deposit to his account in this bank. This slip serves the bank as a memorandum in posting items on its books.

From experience, however, the banker has learned that depositors are not likely to draw out *all* of their money at one particular time. He has learned, too, that so long as people have confidence in the bank, depositors will tend to leave with him all of their deposits, except as they actually need cash from time to time. Ordinarily, thus, depositors are drawing out sums from time to time, but only as business needs require this. From his experience with depositors, and from his knowledge of business conditions in the community, the banker learns a fact of profound importance. This is that if he keeps in his vaults an amount of money equal to from five to thirty-five per cent of the amounts for which he is responsible to depositors, he can feel reasonably sure that whenever any of his depositors call for funds, he will be able to meet their demands.

178. The remainder of this money is loaned out. — The remainder of the sums deposited with him are now loaned out. The illustration of the physician and the boat-builder [1] is an example of what goes on every day in banking circles. People who have no immediate personal use for certain sums of money deposit those sums in the bank, and receive interest on them from the banker. The banker keeps a large enough proportion of this money on hand to assure himself that he will be able to meet the demands for money which depositors make upon him from time to time. The remainder of the money the banker loans out to business men who have some immediate need for it.[2] These borrowers pay interest for the use of this money.

179. The benefits of a bank. — We are now in a position to understand just why banking is a profitable business for several groups of people. The bank exacts, say, $7.00 a year for the use of every $100 which it loans out to enterprisers. Of this sum, say, $5.00 goes to the individual who originally deposited the $100 with the bank. The remaining $2.00 is kept by the bank to pay its expenses, and to yield a profit on the business. A bank makes money just as many other businesses do, namely, by buying for a relatively low price and selling for a relatively high price. In the example given above, banking operations amount to buying the use of $100 for $5.00, and selling the use of that $100 for $7.00. Sound banking thus benefits all of the parties concerned. The depositor is paid for leaving his money with the bank; the borrower is enabled to engage in production; while the bank reaps a profit from the process of connecting the depositor and the borrower.

180. Coined money alone is unable to handle modern business. — Now, as has been pointed out in Part I, the amount of business done in this country has increased by leaps and bounds since colonial times. The amount of money has also increased since colonial times. But the difficulty has been that in the past century the volume of business transactions has increased more rapidly than has the volume of coined money in circulation. The relatively slow increase of gold and silver in circulation has been due to the scarcity of the precious metals, to the difficulties of mining gold and silver, and to a variety of political complications. Still, American business continues to be transacted with effectiveness, despite the relative slowness with which the volume of coined money has increased. The reason for this is that we have supplemented coined money by resorting to something which, while not coined money, yet performs its essential function. This something is known as *credit.*

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[1] Section 165.

[2] The greater part of the loans made by commercial banks are for productive purposes, and only a small share are for the purpose of buying consumers' goods.

b. The nature of credit

181. Meaning of the term "credit." — Although very little understood, credit is of great importance in our industrial life. Let us see if we can gain a clear idea of the meaning of the term "credit." *In its simplest form, credit implies a transfer of goods now in exchange for a promise to pay at some future time.* A grocer extends me credit when I go into his store and am able to get from him potatoes, salt, and other goods, in exchange for my promise to pay him, say, at the end of the month. I get goods from him, but instead of paying him in money now, I pay by a *promise* to pay money at some future date.

If we say that a man's credit is good, we mean he has a reputation for paying his debts, and that for this reason people will deliver goods to him in return for his promise to pay them at some future date. When we say that a man cannot get credit, we mean that for some reason he cannot get goods by paying for them in promises. Thus a grocer may refuse to "charge" goods for an individual whom he believes unable or unwilling to pay his debts.

182. The use of credit under primitive conditions. — Credit is of two kinds. In order to illustrate the significance of these two forms of credit, let us consider the use of credit in a pioneer community in which the exchange of goods is effected chiefly through a "general store."

(*a*) *Use of the first form of credit.* — The first form of credit is represented by pieces of paper which can be used in the place of coined money. Suppose that I am the owner of the general store, and that I often act as buying and selling agent for everyone in the community. Hunters bring me skins and game, and for these articles I give them groceries, clothing, or ammunition. Often, however, they wish to exchange the products of their hunt, not for my goods, but for coined money. In such cases I attempt to pay them in this type of money, but due to the scarcity of coins in this primitive community, it often happens that I have not enough money with which to pay these hunters for their skins and game. Of course, they could trust me to pay them the money at some future time, but suppose that they wish money *now?* Perhaps

In account with

Mrs. John P. Allen

1923

May	*1*	*Two loaves of bread*		*.20*
	2	*Potatoes*	*1*	*.00*
	4	*Eggs*		*.40*
	5	*Ham*	*2*	*.60*
	5	*Breakfast food*		*.45*

PART OF A PAGE FROM A GROCER'S ACCOUNT BOOK

This indicates that Mrs. John P. Allen has been buying groceries from day to day on credit. These groceries are "charged" to her account. At the end of a specified period, say a month, the grocer will probably send her a bill for the goods purchased during the month.

they need money in order to buy certain articles of their neighbors, or for some other purpose.

In such a case I may improvise a kind of currency of my own. I prepare pieces of paper which are stamped as being worth \$.50, \$1.00, \$2.00, \$5.00, or \$10.00, as the case may be. To each of these pieces of paper I affix my signature. When I have no coined money with which to pay a man for a skin worth, say, \$5.00, I offer him instead a piece of this improvised currency. On this piece of paper I have declared, in writing, that if it is accepted in the place of coined money *now*, I will take it back at some later date and give the individual surrendering it to me the sum of \$5.00 in gold or silver coin.

Of course the individual may refuse to accept this paper in return for the skin. But since I am well established in the community, people have confidence in me, and believe that I will " stand back " of my promises to pay. For this reason, people who trade with me will probably accept this sort of " promise on paper," knowing that back of it is my assurance that I will redeem it in gold or silver coin. Similarly my good reputation in the community will enable individuals accepting paper currency from me to use this paper in their transactions with other persons. This paper may circulate as freely among members of the community as though it were coined money, because everyone knows that whoever later surrenders this paper to me may receive gold and silver coin for it. *Since money is defined as anything that passes freely from hand to hand as a medium of exchange, this paper has become money.*

(*b*) *Use of the second form of credit.* — The second form of credit is not represented by definitely marked pieces of paper which circulate in the place of coined money.

To continue the example of the general store, suppose that one of my acquaintances is a lumberman, who is " logging off " an extensive timber lot. He must buy clothes, food, and other supplies at various times during the year, but he gets his money out of his lumber only in the fall, when the logs are shipped out to a saw mill. Now along in the spring or summer he may need supplies, but he has no money on hand with which to pay for them. There may be plenty of money in the community at large, but he personally is temporarily short of money. What shall he do?

He comes to me. I know him to be a reliable man. I know, too, that the lumber which he will sell in the fall is worth many times the amount of the goods which he wants to buy of me. I am willing, therefore, to trust him for groceries and other supplies, and to allow him to pay me in the fall, when he gets paid for his lumber. To assure me that he intends to pay me then, he writes down on a piece of paper words to the effect that he hereby promises to pay me in the fall, say, $300. This piece of paper is called a *promissory note*, because it is a note which bears a promise to pay.[1] However, it might be that when fall comes, the lumberman for some reason could not or would not pay me. To assure me that his promissory note will be paid, therefore, he also gives me a *mortgage* on his lumber lot. This mortgage is a document in which it is agreed that in case the lumberman's promissory note is not paid, I can have his lumber lot sold, and that I can keep out of the money received from the sale an amount sufficient to pay his debt to me.

I now have in my possession a promissory note and also security which guarantees its payment. Thus assured that I shall not lose by the transaction, I am willing to extend credit to the lumberman. I accordingly write down in my account book the fact that he has a right to receive of me goods to the value of $300, without paying me for them at the time he receives them. He is thus enabled to carry on his lumbering business without actually having money. As he needs supplies he comes to my store and gets them. Should he himself be unable to come, he may send a messenger to me with a note, ordering me to advance supplies to the bearer of the note.

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[1] This note may bear interest, that is to say, it may declare that the lumberman will not only pay me the $300, but that he will also pay me 8 per cent interest. This means that at the end of the year he will pay me $324, — $300 of which represents the "principal" of the note, and $24 of which represents the interest on the principal.

This I will do, for I have promised to meet his orders for supplies up to the extent of $300. In the fall of the year, when the lumberman has used up, say, all of the $300 in supplies, he sells his lumber, and pays his debt. I return to him the promissory note, since he no longer owes me money. I also give him back the mortgage, since I no longer have a claim on his lumber lot.

183. The extension of credit under modern conditions. — We have described, at some length, the manner in which a general store might extend credit in a primitive community. Notice, now, that under modern conditions it is the *bank* which is the chief means of extending credit.[1] Fundamentally, however, credit is used by the modern bank in the same manner as it was used by the keeper of the general store in our example. For instance, there are two forms of bank credit, corresponding rather closely to the two forms of credit which were used by the keeper of our general store. The two forms of bank credit are *bank notes* and *deposit credit.*

184. The nature of bank notes. — Bank notes constitute a first type of bank credit. Bank notes correspond to the pieces of paper which the store keeper issued when he did not have enough coined money to pay for the articles which the hunters sold to him. Bank notes may originate somewhat as follows:

Suppose that business in a given community is active. Manufacturers, retail dealers, and other enterprisers wish to borrow funds for a short time in order to increase their stock of goods. They plan to sell their product later on at a profit, and then to repay the borrowed sums. Such types of borrowing are for productive purposes, and hence are perfectly legitimate. Suppose, however, that when these enterprisers come to the bank to borrow funds, the bank finds that it has not enough coined money in its possession to satisfy the demands of all those who wish to borrow of it.

In this predicament, the bank may improvise a paper substitute for coined money, that is to say, it may issue bank notes. *A bank note is a piece of paper which is the promise of the issuing*

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[1] For a description of the origin of bank credit, see the *Readings,* pages 167–169.

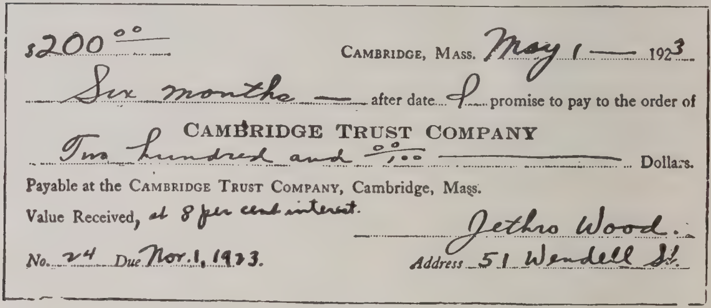
bank to pay, in gold and upon demand, without interest, the amount named on the face of the note. An individual desiring to borrow, say, $500 brings to the bank his promissory note, which declares that he promises to pay the bank, on or before a certain date, the sum of $500, with interest at, say, 8 per cent. To assure the bank that this note will actually be paid, the borrower also gives into the custody of the bank, say, stocks and bonds, the par value of which is $700. These stocks and bonds are called *collateral* security, or simply collateral. This collateral is a pledge of salable property, which guarantees the payment of the debt. The understanding is that if the borrower is unable or unwilling to pay the $500 after the end of the period specified in the promissory note, the banker may cause the stocks and bonds to be sold. Although the borrower is to receive from the bank only $500 in bank notes, the amount of collateral may be set at $700, so that if the stocks and bonds really have to be sold in order to reimburse the bank, they may yield at least $500 in the stock market. If the banker required of the borrower stocks and bonds of a par value of only $500, it might be that in case the stocks and bonds came to be sold, their market price had fallen so far below par, that they would yield only $450 or $400. In such a case the banker would lose money.

To go back to our borrower, this individual now turns over to the bank both his promissory note for $500, and collateral with a par value of $700. In return the bank gives him bank notes which, according to the figures stamped on their face, are the equivalent of $500 in gold.

These bank notes circulate in the community just as coined money does, because of public confidence in the ability and willingness of the bank to redeem them in gold. Such notes are known as "paper currency," or as "paper money." Since money is ordinarily defined as anything that passes freely from hand to hand as a medium of exchange, *these bank notes are money to the individual*, rather than credit. *From the standpoint of the bank, however, they are credit*, because they represent a promise to pay coined money at some future time.

185. The nature of deposit credit. — The second form of bank credit is known as deposit credit. Deposit credit is very similar to the second form of credit used by the keeper of the general store.

Suppose that, as in our earlier illustration, a lumberman is in need of funds. Suppose, further, that he surrenders to the bank a promissory note for $500, and collateral security in the form of stocks and bonds with a par value of $700. Instead of issuing the lumberman $500 in bank notes, however, the bank "creates a deposit credit" in favor of the lumberman.



$200 00/100 Cambridge, Mass. May 1 — 1923

Six months — after date I promise to pay to the order of

CAMBRIDGE TRUST COMPANY

Two hundred and 00/100 — Dollars.

Payable at the Cambridge Trust Company, Cambridge, Mass.

Value Received, at 8 per cent interest. Jethro Wood.

No. 24 Due Nov. 1, 1923. Address 51 Wendell St.

Facsimile of a Promissory Note

This means that the banker writes down on his books the promise to pay all demands which the lumberman may make upon the bank, up to the amount of $500. The lumberman then receives a check book, and is free to write out checks against the bank for any amount up to $500.[1]

186. Money and credit. — Let us see if we can now make clear the meaning of the terms "money" and "credit." Money is defined as anything that passes freely from hand to hand as a medium of exchange. Coined metal is an important form of money. Credit has been developed to aid coined money in the work of facilitating the exchange of goods. The pieces of paper which represent an extension of credit are known as *credit instruments.* Bank notes, checks, drafts, and promissory notes are credit instruments. The bank note is a credit instrument which circulates much as does coined money, and to this extent it becomes money to the individual. Of course, from the standpoint of the issuing bank, the bank note is a form of credit. Credit instruments other than bank notes do not ordinarily pass freely from hand to hand as a medium of exchange, and hence they cannot be called money from any standpoint.

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[1] The dangers of an over-extension of bank credit, and the methods taken to eliminate or reduce these dangers, are discussed in Chapter XXXI.

Thus from the standpoint of the issuing authority, credit instruments always represent credit, not money. From the standpoint of the man in the street, however, credit instruments are money to the extent that they pass freely from hand to hand as a medium of exchange.

Taken together, money and credit constitute a tool which enables buyers and sellers to transact their business effectively. And of these two media, credit is vastly more important than money.[1] More than two thirds of the exchanges throughout the United States are effected by means of credit and credit instruments, and in the great commercial cities, about 95 per cent of exchanges are transacted by means of credit, rather than by means of money. Credit is thus an extremely important supplement to money.

187. Summary and forecast. — The human representatives of demand and supply are buyers and sellers. Money is a tool which enables buyers and sellers to transact business effectively; but because of the relatively slow increase in the amount of coined money, we have resorted to an extensive use of credit. In its simplest form, credit implies a transfer of goods now in exchange for a promise to pay at some future time. The bank has been developed for the purpose of enabling individuals to deal in money and credit. Of the several types of banks, the commercial bank is of greatest importance for our purposes. The commercial bank deals in money, primarily by receiving deposits of money, and loaning out a share of these sums.

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[1] For a discussion of the importance of credit transactions in this country, see the *Readings*, pages 169–172.

The bank deals in two forms of credit. First, it may issue bank notes, or promises to pay, in gold and upon demand and without interest, the sums named on the face of the notes. Second, the bank may create a deposit credit in favor of a borrower. In either case, the bank's extension of credit to the customer may be secured by the surrender of a promissory note and collateral security. Together, money and credit instruments constitute a tool which enables buyers and sellers to transact business effectively.

Such is the function of money and credit. Let us see, in the next chapter, how buyers and sellers actually use money and credit in the exchange of products.

Questions on the Text

1. Who are the human representatives of demand and supply?
2. What is meant by saying that " money is a tool upon which buyers and sellers depend "?
3. Explain the nature of a bank.
4. Distinguish between three types of banks.
5. Why do people deposit money in a bank?
6. Why does the banker keep part of this money in the vaults?
7. Why does he loan out the remainder of this money?
8. Explain how sound banking may benefit depositor, borrower, and banker.
9. Why is coined money alone unable to handle modern business?
10. Define credit.
11. Explain the way in which a general store keeper may make use of the first form of credit.
12. Explain how this store keeper may make use of the second form of credit.
13. Define the term " bank note."
14. Explain carefully how bank notes may come into existence.
15. What is collateral security, and what is its importance?
16. What is meant by " creating a deposit credit "?
17. Summarize, clearly, the relation of the terms " money " and " credit."

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XII.)

1. What is meant by saying that " one difficulty with barter is that it implies a double coincidence of wants "? (pages 161–162.)
2. Explain the statement that " in barter there is no common measure of value." (page 162.)
3. What difficulties, according to Adam Smith, have led to the development of money? (pages 163–164.)
4. What is the purpose of coinage? (page 165.)
5. Explain carefully the way in which the goldsmith first came into possession of the surplus cash of some of his neighbors. (page 166.)
6. How did the goldsmith become an agent for settling claims between members of the community? (pages 166–167.)
7. How did checks come into use? (page 167.)
8. Explain carefully how the banker conceived and applied the idea of making loans. (pages 167–168.)
9. What proportion of the nation's business is done by check? (page 170.)
10. Explain the statement that the volume of business that can be done on credit depends upon banking facilities. (page 171.)
11. What is the relation of the density of population to the volume of credit? (pages 171–172.)
12. What is the relation between the volume of bank credit and the intelligence of the people? (page 172.)
13. Give a few illustrations of capital seeking investment through the agency of the *New York Times* advertising columns. (pages 172–173.)
14. Give a few illustrations of persons seeking capital through the agency of the *New York Times* advertising columns. (pages 173–174.)

Topics for Investigation and Report

1. Examples of persons in your community who represent part of the demand for food, clothing, and fuel.
2. Examples of persons in your community who control the supply of food, clothing, and fuel.
3. Examples of persons who are both potential buyers and potential sellers of numerous goods.
4. The coinage of money in the United States.
5. The extension of credit by store keepers in your community.
6. List and classify the banks of your community.

7. Some important provisions of the banking laws of your state.
8. Secure a bank statement from some banker, and ask some one familiar with banking matters to explain the several items on it.
9. The nature and importance of the bank check.
10. Nature of a promissory note. Write out some typical promissory notes.
11. Nature of a mortgage.
12. Gresham's law.
13. The use of checks in your community.
14. Write to a number of banks in your vicinity, asking for literature describing the varied services which they offer the public.
15. Interview the following persons as to their idea of how the banker makes his profit: a day laborer, a socialist, a farmer, a business man.

Questions for Classroom Discussion

1. Have you personally ever extended credit to anyone? Explain.
2. Have you personally ever received credit? Explain.
3. What are the advantages and disadvantages of a " charge account " from the standpoint of the patron of a department store?
4. What are the advantages and disadvantages of charge accounts from the standpoint of the proprietor of the department store?
5. Discuss the statement that " if you have a charge account, you don't have to pay for things, you just charge them."
6. Money as a standard of deferred payments.
7. Discuss the difference in the credit needs of a truck gardener, a wheat farmer, a dealer in fresh fruits, and a lumberman.
8. Why do many people hoard their money instead of depositing it in a bank?
9. In general, checks are less frequently used in the rural districts than in large commercial cities. Why?
10. Discuss the statement that " a bank is a manufactory of credit."
11. Discuss the statement that " the whole credit mechanism is illegitimate, because it is without basis, being simply built upon air."
12. Discuss the statement that " bankers are always rich."
13. Discuss the difference between the different types of paper money now in general circulation in this country.
14. Discuss the significance of the different items appearing on a bank statement.
15. What do you believe would be the best method of acquainting the general public with the fundamental principles of banking?

NOTE

Kinds of Money in the United States

Coin	Gold	Double Eagle ($20 gold piece) Eagle ($10 gold piece) Half Eagle ($5 gold piece) Quarter Eagle ($2.50 gold piece)	
	Silver	Dollar Half dollar Quarter dollar Dime	
	Nickel (five-cent piece)		
	Copper or bronze (one-cent piece)		
Paper	Gold certificates Silver certificates Treasury notes		These three forms of paper money may be called warehouse receipts for metal deposited in the United States Treasury.
	United States notes (greenbacks) National Bank notes Federal Reserve notes Federal Reserve Bank notes		Secured by the deposit of partial reserve of gold or of bonds or of commercial paper. (For a further description, see Chapter XXXI of the text.)

CHAPTER XIII

EXCHANGING THE PRODUCTS OF INDUSTRY

188. All exchange is exchange between individuals. — Fundamentally all exchange involves the transfer of goods from one individual or group of individuals, to another individual or group of individuals. We may say that Chicago sends New York 100 carloads of cauliflower, but this does not mean that the city of Chicago is sending this consignment to the government of the city of New York. Rather, it means that some individual or group of individuals in Chicago is shipping this produce to some one in New York. We say, too, that the United States imports meat from Argentina. But this only means that individuals in this country buy meat of individuals in Argentina. In the great majority of cases, it is neither sections of the same country, nor nations, that trade with one another. Practically always it is *individuals* who exchange goods.[1]

On the other hand, some special problems are created by the fact that space, time, and differences in money systems often affect exchanges. For this reason we may distinguish three types of exchange: first, exchange between individuals in the same locality; second, exchange between persons in different parts of the same country; and third, exchange between individuals in different countries.

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[1] It might be said that this statement does not hold true when a government or a corporation is a party to an exchange of goods. But a government or a corporation may engage in trade or exchange only by means of its individual representatives, so that it is still true that "all exchange is between individuals." This is splitting hairs, however. What we are trying to show here is simply that it is individuals and not impersonal agencies, or cities, or countries, that actually effect the exchange of goods.

a. Types of exchange

189. Exchange between individuals in the same locality. — The earliest form of exchange was doubtless the exchange of goods between individuals in the same locality. To-day a large amount of trade or exchange is of this kind. The exchange of goods between members of the same family, between neighbors, or between city people and near-by country people, all these are examples of the exchange of goods between individuals in the same locality.

Wagons and Motor Trucks

Are important means of transporting goods, especially for short distances.

190. Exchange between individuals in different parts of the same country. — The process of exchange becomes somewhat more complicated when it extends to individuals living in different parts of the same country.

In the first place, such trade generally takes a longer time than does trade between individuals living in the same locality. For example, trade between a manufacturer in St. Louis and a retail dealer in San Francisco requires much more time than would the exchange of products between a manufacturer in Minneapolis and a retail dealer in the neighboring city of St. Paul.

In the second place, trade between individuals in different parts of the country involves a considerable reliance upon means of transportation and communication. If I wish to buy some flower bulbs of a neighbor, I may effect the purchase merely by going across the street; if I wish to buy goods of some one living a hundred or a thousand miles away, the transaction will doubtless necessitate use of the mails and the railroad.

In the third place, trade between individuals living in different parts of the same country requires a more elaborate provision for paying for the goods than does trade between individuals living in the same locality. To this point we shall return.

191. Exchange between individuals in different countries. — Again, exchange may be between individuals residing in different countries. This is generally called international trade.[1] We speak of *our* share in such trade as our "foreign trade" as opposed to our "domestic trade," *i.e.* trade between individuals within our borders.

Our foreign trade is fundamentally an extension of the trade between individuals in different parts of the United States. When shoes produced in Lynn, Massachusetts, are sold to a lumberman in Oregon, different industrial specialists are enabled to take advantage of the principle of the division of labor and the principle of exchange. When shoes produced in Lynn are sold to a lumberman in Canada, specialists are likewise enabled to take advantage of the division of labor and exchange. When the shoes produced in Lynn are sold to a lumberman in Russia, the case is fundamentally the same.

However, foreign trade is complicated by several factors.

In the first place, foreign trade usually takes more time than does exchange between individuals in different parts of the same country. This may oblige sellers to wait longer for their money than would otherwise be necessary. It may also increase the risks of shipping goods.

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[1] For a description of the organization of international trade, see the *Readings*, pages 178–180.

In the second place, foreign trade is affected by differences in language and customs between countries. Such differences may discourage trade, or at least make it more difficult than domestic trade.

A Bird's-eye View of Boston

At this and other American ports may be seen vessels engaged in carrying American-made goods to foreign countries, and in bringing foreign-made goods to the United States.

In the third place, different countries have different money systems, a fact which complicates the discharge of trade obligations.

b. Exchange creates trade debts

192. Nature of the trade debt. — Buying and selling are phenomena which are inseparable from modern exchange. And every time that goods change hands a trade debt is created. Thus if I buy a shovel from a hardware dealer for $3.00, I am in debt to him for this amount until I pay it. Sometimes goods are paid for as soon as they are purchased, or even in advance, but sometimes they are not paid for until many months have passed. In any case buying and selling create trade debts, which exist until they are cancelled by payment. Let us notice the chief ways in which trade debts may be cancelled or discharged.

c. Payment by cash

193. A trade debt may be discharged by the payment of cash. — One of the simplest ways of paying for goods is by cash. This method is most commonly employed when transactions are small, and are between individuals in the same community. Suppose that a housewife buys a broom in a department store. She may pay cash for it at the time the purchase is made, or when the broom is delivered at her house, or at the end of the month when she receives a bill for it, or at some other time. As to when debts shall be discharged depends, to a large extent, upon the arrangements which have been made between buyer and seller.

d. Payment by check

194. Payment by check under relatively simple conditions. — Payment by check is increasingly important as a means of discharging trade debts.[1] This is especially true in cities, where the nature and functions of the check system are better understood than they are in many rural districts. We may begin the explanation of the check system by assuming a relatively simple case. Let us suppose a community in which there is only one bank, known as the First National Bank.

In this community there is a great deal of buying and selling. Many of the individuals who have contracted trade debts have an "account" at the bank, that is to say, they have at the bank a deposit of funds against which they may draw by means of checks. Suppose that Jackson has purchased some poultry of Follett, and that in exchange for the poultry,

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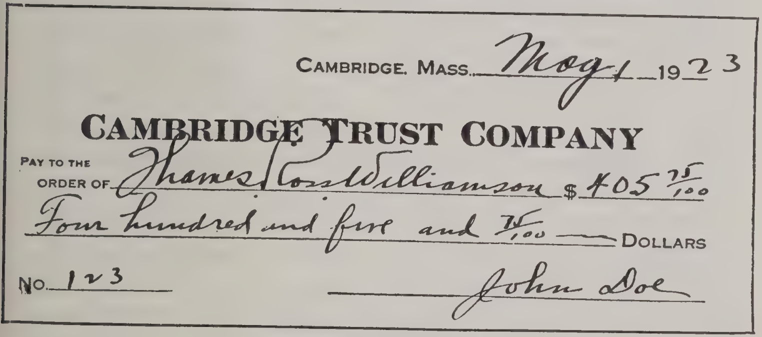
[1] For the use of checks in paying for retail purchases, see the *Readings*, pages 180–182.

Jackson gives Follett a check for $40.00. This check amounts to Jackson's written instruction to the bank to pay Follett $40.00 out of Jackson's account at the bank. Since Follett, too, has an account at the First National, and since we assume that he does not wish cash for the check, he may simply deposit the check to his account.

When he endorses the check and surrenders it to the bank, the bank bookkeeper simply goes to the books, deducts $40.00 from Jackson's account, and adds $40.00 to Follett's account. That cancels the trade debt. Jackson now has $40.00 less in the bank than he had before he bought the poultry, and Follett has $40.00 more in the bank than he had before he sold the poultry.



CAMBRIDGE, MASS. May 1 1923

CAMBRIDGE TRUST COMPANY

PAY TO THE ORDER OF Thomas Ross Williamson $405 75/100

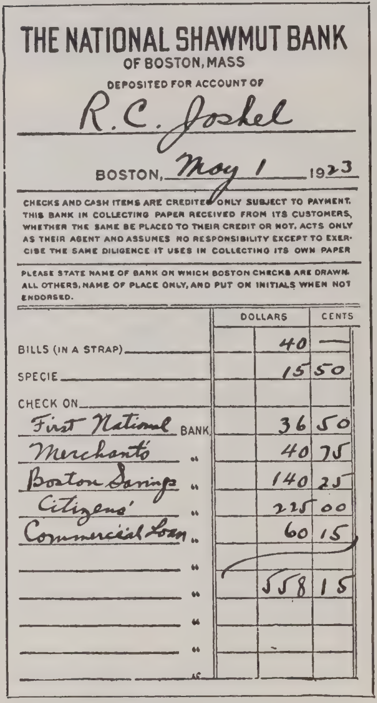
Four hundred and five and 75/100 DOLLARS

NO. 123

John Doe

Facsimile of a Check

195. Payment by check under more complex conditions. — To take a case more nearly like actual life, let us assume that there are, not one, but *several* banks in the community. Suppose, to continue our example, that Jackson has an account at the First National Bank. Jackson buys poultry of Follett, and gives the latter a check on the First National for $40.00. But suppose that Follett has *his* account, not at the First National, but at the Guaranty Bank. Follett could get cash for the check by taking the check to the First National Bank, since it is that bank which must ultimately pay this sum. But this is inconvenient, and accordingly Follett takes this check to his own bank, the Guaranty, along with some cash which he wishes to deposit. As an accommodation to its customer Follett, the Guaranty will accept the check given by Jackson on the First National, and will add $40.00 to Follett's account. This means that the Guaranty accepts the check which the First National should pay, and that it adds to Follett's account the sum of $40.00, the amount of the check. This is all that Follett cares about the transaction, for he has received payment for the poultry.



THE NATIONAL SHAWMUT BANK
OF BOSTON, MASS

DEPOSITED FOR ACCOUNT OF
R. C. Joshel

BOSTON, May 1 1923

CHECKS AND CASH ITEMS ARE CREDITED ONLY SUBJECT TO PAYMENT. THIS BANK IN COLLECTING PAPER RECEIVED FROM ITS CUSTOMERS, WHETHER THE SAME BE PLACED TO THEIR CREDIT OR NOT, ACTS ONLY AS THEIR AGENT AND ASSUMES NO RESPONSIBILITY EXCEPT TO EXERCISE THE SAME DILIGENCE IT USES IN COLLECTING ITS OWN PAPER

PLEASE STATE NAME OF BANK ON WHICH BOSTON CHECKS ARE DRAWN. ALL OTHERS, NAME OF PLACE ONLY, AND PUT ON INITIALS WHEN NOT ENDORSED.

	DOLLARS	CENTS
BILLS (IN A STRAP)	40	—
SPECIE	15	50
CHECK ON		
First National BANK	36	50
Merchants' "	40	75
Boston Savings "	140	25
Citizens' "	225	00
Commercial Loan "	60	15
"		
"	558	15
"		
"		
"		

Deposit Slip

Indicating that R. C. Joshel is depositing to his account at the National Shawmut Bank, not only $40.00 in bills, and $15.50 in specie, but checks paid to him by individuals having accounts in five different banks. In such a case, the National Shawmut Bank credits Mr. Joshel's account with $558.15, and collects the amount of the five checks by means of the clearing house.

However, the Guaranty Bank must now get the money from the First National Bank. The Guaranty might send a messenger over to the First National to collect the check, but this would hardly pay for a single small check. Besides, the Guaranty may receive, in a single day, checks on so many different banks that it would be very inconvenient to collect all of them by special messenger. Also, it might be that, while a messenger was on his way to the First National Bank, a messenger of the First National would be on his way to the Guaranty to collect a check drawn on the Guaranty, but which was deposited with the First National by a depositor of the latter bank.

196. The clearing house. — It will be obvious that in a community of any size, a particular bank is daily receiving numerous checks drawn on other banks, and that there must be some orderly and efficient method of canceling these obligations between banks. This is accomplished by means of a clearing house. The clearing house is a device which a number of banks in a particular community may voluntarily adopt for the purpose of facilitating the canceling of debts among themselves. The clearing house operates as follows:

At the close of the banking day, each bank in the clearing house association sends a messenger to a definite meeting place, called the clearing house. The messenger of a particular bank carries with him the checks which his bank has paid, but which ought to have been paid by some other bank in the association. In the clearing house the representatives of the different banks settle their accounts with one another. If the First National has paid checks drawn on the Guaranty to the sum of $10,000, while the Guaranty has paid checks on the First National to the sum of $8,000, the representative of the Guaranty pays the First National (through the agency of the clearing house) the sum of $2,000. Of course it would be stupid for the Guaranty to pay the First National $10,000, and then for the latter bank to pay the Guaranty $8,000. The $8,000 cancels or balances $8,000 in the debt of $10,000, and only the difference need be paid. In a similar way, each bank settles its account with every other bank in the clearing house association.

By means of the clearing house an almost incredible amount of check business can be transacted without the transfer of any appreciable amount of cash. Moreover, this business is transacted with great speed and efficiency.[1]

197. Payment by check when buyer and seller live in different parts of the country. — So far in our description of the check system we have assumed that buyer and seller live in the same community. Let us see, now, how the check may be used when buyer and seller live in different parts of the country.

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[1] For a description of the clearing house in action, see the *Readings*, pages 182–184.

Suppose that a Chicago produce dealer buys $100 worth of celery from a gardener living in the neighboring town of Geneva, Illinois. The produce dealer sends the Geneva gardener a check drawn on a Chicago bank to the amount of $100. The gardener deposits this check to his account in a Geneva bank. In turn the Geneva bank may collect the check by sending it direct to the Chicago bank on which it is drawn.

If, however, the celery had been sold to a produce dealer in some small town near Chicago, the Geneva bank might find it convenient to send the check to a well known Chicago bank, rather than directly to the small out-of-town bank on which the check is drawn. The Chicago bank might then collect of the out-of-town bank on which the check is drawn, and forward to the Geneva bank the amount due it.[1] In any case, however, the check is finally paid by the bank on which it is drawn.

e. Payment by means of a domestic bill of exchange or draft

198. Nature of the domestic bill of exchange, or draft. — We have seen that the check may be used to discharge a debt when the debtor and creditor live in different parts of the country. A second way of discharging such a debt is by means of the domestic bill of exchange, more commonly called a draft.

A domestic bill of exchange, or draft, is an order by one person, addressed to another, directing payment to a third person, either on demand or at the end of a certain period. Fundamentally the check and the domestic bill of exchange are alike. They differ, however, in two ways. First, the domestic bill of exchange generally looks further to the future for payment than does the check. Second, the domestic bill of exchange is not necessarily drawn on a bank, whereas a check is always drawn on a bank.

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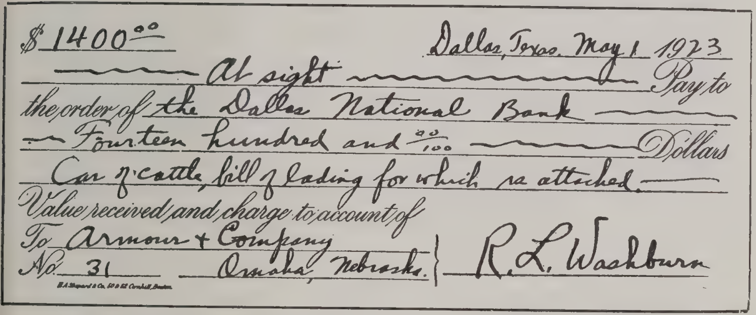
[1] In such a case, of course, the Chicago bank charges the Geneva bank a small commission.

199. How the domestic bill of exchange, or draft, is used. — To illustrate the use of the domestic bill of exchange, let us suppose that I am a cattleman in Texas. I sell a carload of cattle to Armour & Company in Omaha for $1400. I load the car with cattle, and then get from the railroad company a *bill of lading*. This bill of lading is a receipt for the cattle, and also a description of the conditions of the sale. Among other things, the bill of lading bears my name, the name of the consignee (Armour & Company), and the number and kind of cattle contained in the car.



$\$1400^{00}$ Dallas, Texas. May 1 1923

At sight Pay to

the order of the Dallas National Bank

Fourteen hundred and $\frac{00}{100}$ Dollars

Car of cattle, bill of lading for which is attached.

Value received and charge to account of

To Armour & Company

No. 31 Omaha, Nebraska. } R. L. Washburn

FACSIMILE OF A DOMESTIC BILL OF EXCHANGE, OR DRAFT

Mr. Washburn is assumed to be a cattle dealer in Dallas, Texas, who has sold a car of cattle to Armour & Company in Omaha. Mr. Washburn draws this "sight" draft on Armour & Company, and turns this draft and the bill of lading over to his local bank, the Dallas National Bank. This bank credits Mr. Washburn's account to the proper amount, and then collects of Armour & Company through an Omaha bank.

I now go to my local bank, and "draw a draft" on Armour & Company. This means that I write out on a printed paper form a demand that Armour & Company pay $1400, either as soon as this paper demand is presented to them, or at the end of a specified period, say thirty days. I present this draft, together with the bill of lading, to my banker. Since the bill of lading conveys title to the car of cattle, the banker accepts this document and the accompanying draft, and credits my account to the proper amount.

But the bank is not through with the transaction, for it must get the money from Armour & Company. The bank sends the draft and the attached bill of lading to an Omaha bank. This Omaha bank then presents the draft to Armour & Company. If the draft demands payment " at sight " (that is to say, upon demand) Armour & Company pay the draft at once. If the draft demands payment at the end of, say, thirty days, Armour & Company's agent writes across the face of the draft the word "accepted." This means that Armour & Company recognize the existence of the debt, and agree to discharge it after thirty days. Armour & Company then receive the bill of lading, without which they could not secure possession of the cattle. The Omaha bank credits my local bank with the $1400, minus a small commission, and the transaction is closed.

f. Payment by foreign bill of exchange

200. The foreign bill of exchange is used only in international trade. — We have discussed three methods of discharging trade debts. These are payment by cash, payment by check, and payment by domestic bill of exchange, or draft. All of these methods are confined to domestic trade debts, that is to say, debts incurred by transactions in which both buyer and seller are in the same country.

Trade debts incurred in international trade are settled primarily by use of the foreign bill of exchange. Fundamentally the domestic bill of exchange and the foreign bill of exchange are the same, except that one is designed primarily for domestic trade, while the other is designed for foreign trade.

International trade is an exceedingly complicated affair, and for the sake of grasping the principles involved, we shall have to be content to assume a very simple case.[1]

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[1] The handling of foreign bills of exchange requires some accounting because of the differences in the money systems in different countries. For the sake of simplifying our example, however, we shall ignore the differences in money between this and other countries.

201. How the exporter gets his money. — Suppose that I am a New York exporter, that is to say, a New York merchant who habitually sends or exports goods to customers in foreign countries. I send $2,000 worth of typewriters to an English customer by the name of Jones. Obviously, Jones could pay his debt to me by sending me gold. However, if I permitted him to do this I should have to have the gold packed, I should have to pay freight charges on it, and I should have to pay insurance on it during the voyage over. All of these charges for importing $2,000 in gold amount to, say, $12.00. This means that if I had the gold sent over to New York, I should realize for my typewriters, not $2,000, but $1,988, or $2,000 minus $12.00.

Faced by this prospect, I am willing to settle the debt by any means that will bring me *more* than $1,988. In this predicament I make use of a foreign bill of exchange, commonly called a "bill." I draw a bill on my English customer Jones, ordering him to pay $2,000. To this bill I attach the bill of lading and other documents to prove the title to the typewriters which I have shipped. I now go to a bill broker, that is to say, to a broker who makes it his special business to deal in bills of exchange. My bill is a claim for money, and the broker is willing to buy it from me. He pays me for the bill,[1] and I am satisfied. I have my money.

202. How an importer pays his debt. — Let us turn aside for a moment, in order to consider the case of a New York importer. Suppose that this importer has purchased some cutlery of an Englishman, and that the importer must discharge this debt. For the sake of simplicity, let us assume that this debt is also for $2,000. The importer might send $2,000 in gold to the Englishman, but, as we have seen, the sending of this amount in gold to England would cost $12.00. To discharge a debt of $2,000 by this method would cost $2,012. The importer is therefore willing to discharge this debt by any means that will cost him *less* than $12.00.

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[1] Brokers who deal in bills of exchange habitually charge a small commission for their services. This commission is left out of account in this discussion for the sake of simplifying our example.

Accordingly the importer goes to the bill broker and from him buys, say, the very bill which I sold that broker. This bill is a written demand that my English customer, Jones, pay $2,000 to the individual who presents the bill for payment. The New York importer buys this bill, and sends it by mail to the Englishman to whom he owes $2,000. Through the medium of a bank this Englishman may then present the bill to Jones, and Jones pays it.

In this way two debts have been discharged without the shipment of gold across the ocean. I have received payment by selling a bill on Jones; the New York importer bought this draft and used it to discharge his debt to his English creditor. The latter then collected of Jones. Jones, of course, would as soon discharge his debt to me by paying a third party as by paying me direct.

203. The price of bills of exchange. — Every boy and girl is familiar with the fact that if a grocer has a small supply of some badly-wanted food, such as strawberries, he can exact a high price for it. On the other hand, if strawberries are abundant, he will have to be content to take a lower price, lest he be unable to sell all of his supply of berries.

The same reasoning applies to the price which the bill broker pays for bills of exchange. If we were to visit, say, certain shipping and financial districts of New York City, we should see that numerous exporters are selling bills to brokers, while numerous importers are buying bills of the brokers. If there are more exporters wanting to sell bills than there are importers seeking to buy bills, then the broker will offer *less* than the amount on the face of the bills. He will be obliged to do this, because he is faced with the prospect of having to sell these bills for a relatively low price in order to get rid of them all. On the other hand, if importers wish many bills, and exporters have few bills to sell, the broker will offer *more* than the amount on the face of the bills, because he knows that the relative scarcity of bills will enable him to exact a relatively high price of buyers.

204. The price which the exporter gets for the bill he sells. — Suppose, to continue our previous example, that I wish to sell a broker a bill for $2,000, but that because he fears he cannot sell all the bills which he has been buying, he offers me only $1995 for my bill. I am willing to take this, for if I were to import gold at a cost of $12.00 (rather than selling a bill), I should realize only $1988. But suppose that a further increase in the supply of bills causes the broker to offer me a lower and lower price for each successive $2,000 bill which I offer him. Suppose that at length he offers me for one bill only $1988. Then it is a matter of indifference to me whether I import gold or sell a bill. Should the price of the bill drop *below* $1988, I will certainly import the gold, for by so doing I should realize more than I should by selling the bill. In this case, $1988 is the *gold-importing point*, that is to say, it is the point beyond which the price of bills of exchange can not fall without encouraging exporters to prefer importing gold to selling bills.

205. The price which an importer pays for a bill. — Consider now the situation in which the importer finds himself. He owes an Englishman $2,000, but because it would cost $12.00 to export $2,000 in gold to England, the importer prefers to buy a bill and send that.

Suppose, now, that there are more importers wishing to buy bills than there are American exporters with bills to sell. Then the broker, seeing that the relatively few bills which he has are in great demand, will charge a relatively high price for them. If he charges the importer $2,005 for a $2,000 bill, the importer will nevertheless purchase the bill, because paying an extra $5.00 for the bill is preferable to paying an extra $12.00 to export the gold. Should the demand for bills continue to outrun the supply, the price of bills may go higher and higher. When the price reaches $2,012, it will be a matter of indifference to the importer whether he buys a bill or ships gold to his creditor in England. Should the price rise *above* $2,012, he will certainly ship gold, since this is now cheaper than buying a bill. The *gold-exporting point*, in this case, is

$2,012. This means that should $2,000 bills rise in price above $2,012, importers will begin to export gold to pay their debts, rather than continuing to buy bills.[1]

Such are the fundamental principles involved in the discharge of trade debts incurred in the process of international trade.

206. Summary and forecast. — Practically all exchange is between individuals. The simplest type of exchange is between individuals in the same locality. When exchange exists between individuals in different parts of the same country, the process is complicated by the greater length of time involved, by a greater dependence upon means of transportation and communication, and by the necessity of a relatively elaborate method of settling trade debts.

Exchange between individuals in different countries is complicated by the greater length of time involved, by differences in language and customs, and by differences in the money systems of various countries.

Exchange creates trade debts, which must be discharged. In domestic trade these debts are discharged by cash, by use of the check, or by use of the domestic bill of exchange or draft. Payment by cash is often the simplest way. Payment by check involves the use of the clearing house where buyer and seller are both in the same community, and use of a collection system when buyer and seller are in different parts of the country. Practically all debts incurred in the process of international trade are discharged by means of the foreign bill of exchange. Instead of sending gold back and forth across the ocean, American exporters generally sell bills on their foreign customers, while American importers buy bills and send these to their creditors in foreign countries. So long as the price of bills of exchange fluctuates between the two "gold points," no gold will be shipped.

In this and the four preceding chapters we have examined the parts of the industrial mechanism. Demand and supply are the two great forces affecting production. They act on each other by means of money and credit. Some of the ways in which money and credit facilitate operations between buyers and sellers have been developed in this chapter. In the next chapter we shall turn to the nature of price and the manner in which it is established.

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[1] For a further discussion of the price of bills of exchange, see the *Readings*, pages 184–187.

Questions on the Text

1. What is meant by the statement that "Chicago sends New York 100 carloads of cauliflower"?
2. Illustrate the exchange of goods between individuals in the same locality.
3. What three factors complicate exchange between individuals in different parts of the same country?
4. In what way is international trade like domestic trade? In what ways are the two different?
5. Explain the meaning of the term "trade debt."
6. Illustrate the discharge of a trade debt by the use of cash.
7. Illustrate payment by check in a community in which there is only one bank.
8. What is a clearing house, and what is its purpose?
9. Just how does the clearing house operate?
10. Illustrate the use of the check when buyer and seller live in different parts of the country.
11. What is a domestic bill of exchange, or draft?
12. Explain the use of the domestic bill of exchange by the case of the Texas cattleman who has sold a carload of cattle to Armour & Company in Omaha.
13. What is the difference between a domestic bill of exchange and a foreign bill of exchange?
14. Explain how an exporter gets his money by use of the foreign bill of exchange.
15. Explain how an importer may discharge his debt by means of a bill of exchange.
16. What determines the price of bills of exchange?
17. Illustrate the fluctuations in the price of bills from the standpoint of the exporter.
18. What is the gold-importing point?
19. Illustrate the fluctuations in the price of bills from the standpoint of the importer.
20. What is the gold exporting point?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XIII.)

1. What is the basis of all permanent trade? (page 176.)
2. Illustrate the basis of permanent trade with reference to local trade. (page 176.)
3. Enumerate some of the factors which explain trade between regions. (pages 176–178.)
4. Describe, briefly, the work of the export commission house. (pages 178–179.)
5. Describe, briefly, the work of the manufacturers' export agent. (pages 179–180.)
6. Illustrate the use of the check in retail trade. (page 181.)
7. What is the relation of "charged" sales to payment by check? (page 181.)
8. Describe the way in which cancelled checks get to the clearing house. (page 183.)
9. What are the two methods of delivering the items? (page 183.)
10. Describe the actual exchange of items in the clearing house. (pages 183–184.)
11. Illustrate the speed with which the business of a clearing house may be transacted. (page 184.)
12. Show how exports are encouraged when bills are above par. (page 186.)
13. Show how imports are encouraged when bills are below par. (page 186.)
14. What are the intellectual and moral benefits of foreign trade? (page 188.)
15. What, according to John Stuart Mill, is the relation of foreign trade to good-will among nations? (page 188.)

Topics for Investigation and Report

1. Examples of trade between individuals in your community.
2. Examples of trade between individuals in your community and individuals in other sections of the country.
3. Examples of trade between individuals in your community and individuals in foreign countries.
4. Examples of the discharge of trade debts by the payment of cash at the time the goods are purchased.
5. Examples of the discharge of trade debts by the payment of cash at the end of the month in which the goods are purchased.

6. The purchase of goods in your community on the "partial payment plan," that is, a small amount in cash at the time of the purchase and a designated amount per week or month until the entire debt is discharged.
7. Extent to which checks are used in your community.
8. Make a study of a clearing house in your community or locality.
9. Interview an officer of a bank belonging to a clearing house association on the advantages of the clearing house.
10. Use of the domestic bill of exchange, or draft, in your community.
11. Make a brief study of the chief products which we import from foreign countries.
12. Make a brief study of the chief products which we export to foreign countries.
13. Services rendered by brokers who deal in foreign exchange.
14. Relation of foreign exchange to the supply of gold in the United States.
15. Effect of the Great War upon foreign exchange.

Questions for Classroom Discussion

1. Discuss the effect upon your community if all exchange between individuals within it were to cease.
2. Discuss the effect upon your community if all exchange between its members and individuals in other parts of the country were to cease.
3. Discuss the effect upon your community if all exchange between its members and individuals in foreign countries were to cease.
4. Under what circumstances might checks properly be called money?
5. What is a trade acceptance?
6. Discuss the meaning of the term "favorable balance of trade."
7. To what extent has our foreign trade increased in importance in the last quarter of a century?
8. Sometimes it is said that "it is disgraceful for the United States to be dependent upon foreign countries for commodities." Discuss.
9. Do you think we are now importing any commodities which we might well produce at home?
10. In any given year we both export and import a considerable amount of certain types of commodities, such as, for example, meat. Why is this?

11. Discuss the statement that "exports pay for imports."
12. Discuss the effect of the Great War upon our imports.
13. Discuss the effect of the Great War upon our exports.
14. Gold shipments between this and other countries during and immediately after the Great War.
15. What is the relation of the tourist trade to the price of bills of exchange?

B. The Theory of Price

CHAPTER XIV

WHAT DETERMINES THE PRICE OF A GOOD?

207. The nature of value. — The word "value" is in common use, but it is used in so many different ways as often to create confusion. Economists have tried to make this word serve a useful purpose by specifying, in particular cases, just what they intend the term value to cover. But even with this precaution the student is often puzzled by the variety of uses to which the word value is put, and by the contradictions between different writers.

There is, however, a general agreement among economists that whatever else the word may be taken to mean, it may certainly be used to mean *power in exchange*. If, for example, a horse can be exchanged for three cows, while a wagon can be exchanged for only two cows, the horse is more valuable than the wagon, because it has been able to command more cows in exchange. If no one is willing to barter any other commodity for a horse, the horse may be said to have no value.

208. The nature of price. — Notice, however, that in modern life most exchanges are effected, not by means of barter, but through the medium of money. Ordinarily the man who has a horse, and wishes, say, one or more cows, does not exchange the horse directly for the cows, but sells the horse for money, and then uses money to purchase the desired kind and number of cows. Money is of great service in measuring the relative values of goods, because no matter how numerous and different the goods which are being bought and sold, we can quickly gain a general idea of their value by expressing that value in terms of money. If we were told that the value of a grain binder was two yearling colts, a set of butt chains, and three cant hooks, most of us would probably be confused. We might not know what breed or kind of yearling colts was meant, and we might not even know the meaning of the terms "butt chains" and "cant hooks." Consequently we would not know whether a grain binder were cheap or expensive. But if, on the other hand, we were told that the value of the grain binder was $250, we would at once have a general idea of whether grain binders were cheap or expensive.

A MARKET

In which numerous buyers and sellers come together. These people are probably talking about the *price* of goods, rather than about their *value.*

It is thus simpler always to express the value of goods in terms of money, instead of in terms of numerous other goods. For this reason the overwhelming majority of buyers and sellers actually think of value, not in terms of commodities in general, but in terms of money. Anyone who visits a market, or listens to discussions between buyers and sellers, hears little about "value" but much about "price." This means that people are valuing goods, not in terms of numerous other commodities, but in terms of money. Thus a horse may be said to sell for the price of $100. This means that its value, expressed or measured in terms of money, is $100.

We are now ready for a formal definition of price. *Price is value expressed in money.*

209. Price is determined by the interaction of two forces. — One of the forces which helps to determine price is demand, as represented by buyers. *Buyers want goods because of their utility.* They wish to exchange money for goods, because the goods have utility for them, and because they cannot get those goods without paying for them. Buyers tend to offer higher prices, if they think that they are in danger of being deprived of important and much wanted goods. On the other hand, buyers tend to offer lower prices, if they think that they can get the goods for these reduced prices.

The second great force which helps to determine price is supply, as represented by sellers. *Sellers can exact a price for their goods because the goods have utility, and because those goods are so scarce as not to be had without payment.* Supply, it should be understood, does not refer to the total amount of a good which is in existence, but to the amount which sellers offer for sale at a particular price. If the price of apples is hovering about $2.00 a box, sellers may offer only 300 boxes of apples. In such a case 300 boxes is the supply of apples. If sellers think that they may be able to sell apples for more than $2.00 a box, they may increase the supply. This they do by offering more than 300 boxes for sale, the extra boxes being secured either from store rooms or from orchards. If the price shows a tendency to be less than $2.00, sellers may decrease the supply by withdrawing some of the apples from the market. The apples withdrawn are either stored, or are offered for sale in another market. Within certain limits, therefore, sellers will tend to increase or decrease the supply as prices change.

The desires of buyers and sellers are *in harmony* in that both groups wish an exchange to take place, so that each may benefit from the principle of the division of labor and the principle of exchange. On the other hand, the desires of buyers and sellers are *in antagonism* in that each group desires the exchange to be effected on terms which are primarily favorable to itself. Buyers wish the goods to sell for a low price, but sellers wish the goods to sell for a high price.

The actual determination of price is the result of the interaction of buyers and sellers, bargaining with each other under conditions of open competition.[1]

210. The law of the market. — Let us notice, at this point, a tendency which is so persistent in the operations of the market that some economists have called it the "law of the market." This may be stated as follows: *At any given time, goods which are of the same kind and quality tend to sell for the same price.* To illustrate this law, let us assume that a number of retail provision dealers come together in a market where turkeys for the Thanksgiving trade are being sold at wholesale. Assuming that all of the turkeys are of the same size and quality, they will tend to sell for the same price at any particular time. Why?

In the first place, competition between buyers will help to establish a single price for the turkeys. Suppose that the prevailing price seems to be about $3.70 per turkey,[2] but that one buyer fears that because of the eagerness of competing buyers he will be unable to get as many turkeys as he wishes. In order to make sure that he will get as many turkeys as he wishes, this buyer may offer *more* than $3.70 per turkey, say, $3.90. But instead of part of the turkeys selling for $3.70 each, and part of them for $3.90 each, the action of this one buyer will tend to establish the price of all the turkeys at $3.90. Why? Because all of the sellers will now prefer selling their turkeys to the buyer who offers $3.90. As a result, the buyers who have offered only $3.70 per turkey may fear that *they* are to be deprived of as many turkeys as they wish. In this case, these buyers also offer $3.90 per turkey. Thus competition among buyers helps to establish a uniform price for the turkeys.

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[1] When competition is suppressed between sellers there is said to be monopoly. Monopoly implies that instead of competing with each other, sellers are members of a combination which agrees upon the price which will be asked for all parts of the supply. But complete monopoly is rare, and although competition is often somewhat hindered, the price of most goods is established much more largely by competition than by any other force. For this reason the present discussion of price assumes the existence of competition between buyers on the one hand, and between sellers on the other. (For a discussion of monopoly, see Chapters XXVIII and XXIX.)

[2] Usually turkeys are sold by the pound, but for the sake of making our example clear and concrete we shall assume that they are sold for so much apiece.

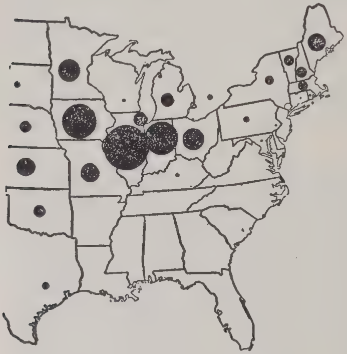
POTATOES OF A GIVEN SIZE AND QUALITY

Exposed for sale in a wholesale market. These potatoes will tend to sell for the same price.

In the second place, competition between sellers will help to establish a single price for the turkeys. Suppose, now, that the prevailing price for turkeys seems to be about $3.80, but that buyers appear so indifferent to turkeys at this price that one seller fears that he will be unable to dispose of all of his turkeys. In order to tempt buyers, this seller may lower the price of his turkeys, from $3.80 to $3.70. This draws buyers away from sellers who have been asking $3.80 for their turkeys, and toward the seller who has offered to dispose of his turkeys at $3.70 each. As a result, the remaining sellers are forced to lower their price to $3.70 in order to attract some of the buyers from the seller who first offered to sell for $3.70.

Thus competition between sellers helps to establish a uniform price for turkeys.[1]

211. How this simplifies the problem of price. — The law of the market greatly simplifies the problem of price. Accepting it as a basis of discussion, it affects our problem as follows:



WHERE THE CITY OF BOSTON, MASS., GETS ITS EGGS

The largest black sphere is in the state of Illinois, indicating that the farmers of Illinois ship more eggs to Boston than do the farmers of any other state.

But whatever the origin of the eggs sold in the Boston market, those of the same kind and quality will tend, at any given time, to sell for the same price.

In the first place, price must be considered with reference to a particular time, say during a day's operations in a market. We cannot get very far by generalizing as to market price over an extended period of time.

In the second place, price must be considered with reference to goods of the same kind and quality. Thus we cannot generalize as to the price of turkeys and canary birds, or corn and onions. Each type of good must be discussed separately.

In the third place, we know that whatever the price established at any particular time, it will be uniform for all of the units of a given kind and quality of goods. We are thus trying to determine how one certain price emerges, and not how numerous prices are determined.

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[1] Prices sometimes change rapidly in a feverish market, thus giving the impression that the law of the market does not apply. However, some of these differences in price are due to slight differences in the quality of the goods, so that the goods are not really of the same kind and quality. Sometimes, too, goods selling for different prices are not really in the same market. By this we mean that the connections between buyers and sellers are not sufficiently effective to allow perfect competition. Properly understood and applied, the law of the market expresses an important economic truth.

In the fourth place, we may expect this price to be set by the interaction of buyers and sellers in open competition. When people buy goods in *retail* shops, the prices which they pay for goods are often determined, not by competition, but by habit and custom. In most cases, individuals who want small quantities of food, clothing or other goods, simply go to some retail shop or store, ask the price of the desired articles, and either accept or refuse the articles at that price. There is little or no bargaining or higgling between buyer and seller. In the *wholesale* market, on the other hand, price is more generally set, not by custom or habit, but by open competition between buyers and sellers.[1] As a typical example of how price emerges, let us continue our example of the retail dealers who come to a wholesale market in order to secure turkeys for their Thanksgiving trade.

212. The calculations of a particular buyer. — Each dealer comes to the wholesale turkey market with some idea of how many turkeys he wants and what prices he is willing to pay. If turkeys are high in price, the buyer will demand relatively few because he knows that he will have to charge his customers a correspondingly high price, and that in such a case his customers will demand fewer turkeys than would otherwise be the case. But if the turkeys are low in price, the buyer will be willing to buy a relatively large number, because he knows that the lower the price the more turkeys he can sell his customers. The calculations of the buyer may be expressed by the following table:

If the price is	$4.00	per turkey the buyer will demand	75	turkeys.
“ “ “ “	3.90	“ “ “ “ “ “	80	“
“ “ “ “	3.80	“ “ “ “ “ “	85	“
“ “ “ “	3.70	“ “ “ “ “ “	90	“
“ “ “ “	3.60	“ “ “ “ “ “	95	“
“ “ “ “	3.50	“ “ “ “ “ “	100	“

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[1] Since the prices which retailers charge are based upon what the retailers have had to pay for the goods in the wholesale market, it is permissible to say that fundamentally retail prices, as well as wholesale prices, are set by competition

213. The calculations of the buyers as a group. — But there are other retail dealers who have come to this market for the purpose of buying turkeys. Suppose, in order to simplify our example, that there are only two more buyers. Each of these buyers has calculated as to how many turkeys he wants, and as to how much he will pay for them. The calculations of the second buyer may be expressed as follows:

If the price is $4.00 per turkey this buyer will demand 50 turkeys.
“ “ “ “ 3.90 “ “ “ “ “ “ 53 “
“ “ “ “ 3.80 “ “ “ “ “ “ 56 “
“ “ “ “ 3.70 “ “ “ “ “ “ 59 “
“ “ “ “ 3.60 “ “ “ “ “ “ 62 “
“ “ “ “ 3.50 “ “ “ “ “ “ 65 “

Similarly, the calculations of the third buyer may be expressed as follows:

If the price is $4.00 per turkey this buyer will demand 25 turkeys
“ “ “ “ 3.90 “ “ “ “ “ “ 27 “
“ “ “ “ 3.80 “ “ “ “ “ “ 29 “
“ “ “ “ 3.70 “ “ “ “ “ “ 31 “
“ “ “ “ 3.60 “ “ “ “ “ “ 33 “
“ “ “ “ 3.50 “ “ “ “ “ “ 35 “

In order to get an idea of what the demand for turkeys is in this market, we must now consider the demands of all three buyers. This is easily done. Looking over the calculations of the three buyers it appears that if the price of turkeys is $4.00 the first buyer will demand 75 turkeys, while the second buyer will demand 50 turkeys, and the third buyer will demand 25 turkeys. Thus if the price is $4.00 per turkey, buyers as a group will demand 75 plus 50 plus 25 turkeys, or a total of 150 turkeys. The demand of buyers for turkeys at different prices may be similarly calculated. Thus adding together the calculations of the three buyers, we may express the demand of buyers as a group as follows:

If the price is $4.00 per turkey buyers will demand 150 turkeys.
“ “ “ “ 3.90 “ “ “ “ “ 160 “
“ “ “ “ 3.80 “ “ “ “ “ 170 “
“ “ “ “ 3.70 “ “ “ “ “ 180 “
“ “ “ “ 3.60 “ “ “ “ “ 190 “
“ “ “ “ 3.50 “ “ “ “ “ 200 “

214. The calculations of the sellers as a group. — Let us notice, now, that there are a number of sellers in the wholesale turkey market. Each of these sellers has his calculations as to how many turkeys he is willing to sell at a given price. The turkeys offered for sale by the sellers have been produced at different costs, some farmers having had the advantage of cheaper feed than others, and some farmers having been able to bring their turkeys to market more cheaply than other farmers. Because of these variations in the cost of producing the turkeys, the sellers in the market vary as to the number of turkeys they are willing to sell at different prices. Nevertheless, all sellers will be willing to sell fewer and fewer turkeys as the price goes down, and more and more turkeys as the price goes up. Without taking the trouble to plot the calculations for each seller separately, let us suppose that as a group the calculations of the sellers are expressed by the following table:

If the price is $4.00 per turkey sellers will offer 300 turkeys.
“ “ “ “ 3.90 “ “ “ “ “ 275 “
“ “ “ “ 3.80 “ “ “ “ “ 220 “
“ “ “ “ 3.70 “ “ “ “ “ 180 “
“ “ “ “ 3.60 “ “ “ “ “ 160 “
“ “ “ “ 3.50 “ “ “ “ “ 150 “

215. Buyers' and sellers' calculations contrasted. — We now are in a position to compare the calculations of the buyers with the calculations of the sellers. Combining the table which expressed the calculations of buyers with the table expressing the calculations of the sellers, we get the following table:

At $4.00 per turkey buyers demand 150 turkeys and sellers offer 300
“ 3.90 “ “ “ “ 160 “ “ “ “ 275
“ 3.80 “ “ “ “ 170 “ “ “ “ 220
“ **3.70** “ “ “ “ **180** “ “ “ “ **180**
“ 3.60 “ “ “ “ 190 “ “ “ “ 160
“ 3.50 “ “ “ “ 200 “ “ “ “ 150

216. How market price is established. — Under these conditions 180 turkeys will be sold, for $3.70 each. Let us see why this is so.

Certainly the price of the turkeys will not be $4.00, because at that price buyers are willing to take only half as many fowls as sellers offer. If the price showed any tendency to settle at $4.00, competition between sellers would force it down. There being twice as many turkeys offered as are wanted at that price, each seller would endeavor to win buyers away from competing sellers by offering his turkeys at a lower price. The price would not stop when it had reached $3.90, because at this price there are 275 turkeys offered, and only 160 wanted. The eagerness of sellers to get rid of their turkeys would cause them to offer turkeys at a still lower price. Similarly the price would fall below $3.80 and would settle at $3.70. At $3.70 buyers and sellers are in agreement, because at that price buyers are willing to buy just as many turkeys as sellers are willing to sell. The interaction of buyers and sellers has resulted in balance or equilibrium, and, as a result, 180 turkeys are sold, at $3.70 each.

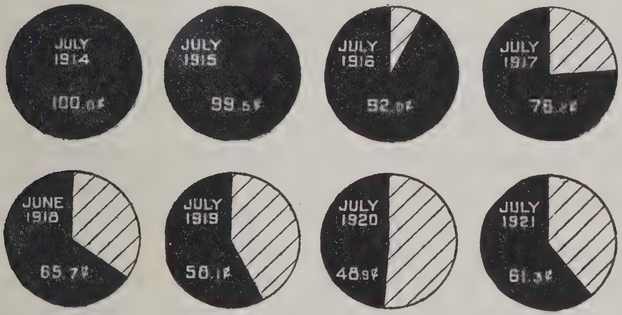
But why will the price not fall below $3.70? Because competition among *buyers* will prevent it from falling below that figure. Suppose that the price of turkeys showed some tendency to settle at $3.60. In such a case buyers would want 190 turkeys, but sellers would offer only 160 turkeys. If the price were $3.60, therefore, some buyers would be in danger of getting fewer turkeys than they want. Accordingly some buyer would try to get more turkeys by offering more than $3.60. All of the buyers competing with him would do likewise, since *they* do not desire to be the ones to leave the market with an insufficient number of turkeys. Competition between buyers will thus force the price *up* to $3.70, just as competition between sellers forced it *down* to $3.70. It is only when the price is $3.70 that both buyers and sellers are satisfied, and that competition between buyers on the one hand, and competition between sellers on the other hand, ceases.

The price of the turkeys, we conclude, will be $3.70, at which price 180 will be sold.

217. Fluctuations in market price. — We have discussed the manner in which the market price of a good will be established under a particular set of circumstances.

Let us notice, finally, that market price changes or fluctuates from time to time. For example, the price of wheat, or fresh fruit, or other goods, may change from day to day, or even from hour to hour.

These fluctuations may be very marked, but experience tells us that neither unusually high nor unusually low prices are likely to prevail for very long. Over a long period of time, indeed, prices tend to be fairly constant or *normal*. Market price tends to fluctuate about normal price, sometimes falling below it, sometimes rising above it, but always tending to return to it. Let us see why this is so.



Purchasing Value of the Dollar, Based on Cost of Living — Retail Prices

When prices go up, a dollar will buy less than formerly, in which case we say that the "purchasing value of the dollar" has decreased. The above chart indicates the rapid rise in prices (and the consequent decline in the purchasing value of the dollar) during and after the Great War. By July, 1920, prices had risen so high that a dollar would buy less than half as much as in July, 1914.

Should the market price of a commodity continue to rise, the supply will tend to increase. Producers already in the market will be encouraged to increase their output, and new producers will be attracted to the field by the higher prices prevailing. As the result of the increase in supply, sellers will finally be obliged to underbid one another in order to dispose of their goods. This competition among sellers will check a further rise in price, and will actually reduce the price.

If, on the other hand, prices continue to fall, the supply will tend to decrease. Producers with a relatively high cost of production will tend to drop out of the market, while those producers who still make a profit will diminish their output. As a result, competition among buyers for the decreased supply will check a further decline in price, and will actually increase the price.

Under conditions of free competition, thus, neither unusually high nor unusually low prices can long prevail. Over a long period of time the price of a good tends to settle about a theoretical level which may be called normal.[1]

218. Summary and forecast. — One type of value is defined by the economist as power in exchange. Under conditions of barter value of this type would be measured in whatever commodity a particular good exchanged for. But under modern conditions the value of goods is estimated in terms of money. Price is value expressed in money. Price is determined by the interaction of buyers and sellers in open competition. The law of the market may be stated as follows: At any given time, goods which are of the same kind and quality tend to sell for the same price. This one price is established at a point at which the demands of buyers are in equilibrium with the offers of sellers, so that at that price buyers are willing to buy just the amount which sellers are offering. Market price fluctuates from time to time, but over a long period of time it tends to settle about a theoretical level which may be called normal.

Having discussed the manner in which the price of a good is determined, let us apply the reasoning in this and the previous chapters to the problem of the distribution of industrial income.

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[1] See the discussion of price fluctuations in the *Readings*, pages 198–202.

Questions on the Text

1. Define value.
2. Define price.
3. What two forces help to determine price?
4. In what sense are the desires of buyers and sellers in harmony?
5. In what sense are the desires of buyers and sellers in antagonism?
6. What is meant by the law of the market?
7. How does this law simplify the problem of price?
8. What is the basis upon which a buyer makes his calculations as to how much of a good he wants?
9. What accounts for the fact that different sellers have different calculations as to the amounts which they will offer at particular prices?
10. Explain carefully just how market price is established.
11. What is meant by " normal price " ?
12. Show that market price tends to coincide with normal price.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XIV.)

1. Describe the origin of the primitive market place. (pages 190–191.)
2. Discuss the development of the market in modern times. (page 192.)
3. Comment upon the fluctuations in the price of products offered in the New York produce market. (pages 192–193.)
4. What is the relation of the newspaper to marketing? (page 194.)
5. In what form does Professor Jevons state the law of the market? (page 197.)
6. Illustrate the statement that the price of a given commodity is in a state of continual change. (page 197.)
7. What is the difficulty of working out a complete solution of the problem of price movements? (pages 197–198.)
8. Illustrate fluctuations in market price with reference to wheat, corn, cotton, wool, and copper. (page 198.)
9. Explain the statement that " the prices of relatively imperishable commodities fluctuate less widely than do the prices of perishable commodities." (pages 198–199.)
10. What has been the effect of modern improvements in transportation and marketing upon price fluctuations? (page 199.)
11. What can be said as to price fluctuations in the case of monopolized articles? (pages 199–200.)
12. What is meant by " normal price "? (page 200.)
13. Why does competitive price tend toward the theoretical level of normal price? (pages 200–201.)

14. Why must normal price cover the cost of production, including the ordinary rate of profit? (pages 200–201.)
15. Explain clearly the statement that " the quantity of every commodity tends to adjust itself to the effectual demand." (page 202.)

Topics for Investigation and Report

1. The variety of ways in which the term " value " is used in popular discussions.
2. The variety of ways in which economists use the term " value."
3. Visit a produce market in your community and study the transactions there.
4. Examples of persons in your community who specialize in marketing.
5. Extent to which food and other household supplies are purchased over the telephone, rather than as the result of personal inspection.
6. Recall trips to the market which you have made, and compare the ideas which you had when you were on your way there, with your actions when you had observed actual conditions there.
7. Methods by which buyers attempt to get goods for a relatively low price.
8. Methods by which sellers attempt to exact a relatively high price for their goods.
9. Study the law of the market in actual marketing operations in your community.
10. The extent and rapidity with which sellers of fresh produce can increase or decrease the supply as prices change.
11. The effect of custom and habit upon retail prices.
12. The effect of the development of the mail order house upon prices in retail stores.
13. The effect of war upon prices.
14. The effect of monopoly upon prices.
15. The safeguards of the consumer against monopoly.
16. Advantages of a municipal market.

Questions for Classroom Discussion

1. The relation of utility and scarcity to price.
2. Usually we are attracted to goods because of their low price. Under what circumstances would some people be impelled to buy goods primarily because the price is high?

3. What time of day is the best time for a shopper to buy in the fresh produce market? What time of the week?
4. Some years ago some of the cotton growers in the South agreed to destroy part of their crop. Why do you suppose they wanted to do this?
5. What influences would greatly increase or decrease the price of the following: roses, cheese, black dress goods, petroleum, steel, eggs?
6. Discuss the statement that "grocers are asking more than a *fair* price for their goods."
7. Discuss the statement that "the goods aren't worth the money asked for them."
8. Discuss the statement that "this house is worth more than I paid for it."
9. Discuss the statement that "the price of goods affected by changes in fashion always fluctuates widely."
10. Discuss the meaning of the store window sign: "Value $100, Price $75."
11. Why doesn't a loaf of bread sell for $2.00?
12. Why doesn't an automobile sell for $10.00?
13. Of which type of goods do you suppose a monopolist would prefer to secure control, necessities or luxuries? Why?
14. Can a monopoly of the necessities of life ever be justified? Explain.
15. Would it ever be possible for a monopolist to sell his goods for a lower price than those goods had been sold at under competitive conditions?

CHAPTER XV

DISTRIBUTING THE INCOME OF INDUSTRY

219. The problem stated. — The greatest problem in economics is known as " the distribution of wealth," or, to use a shorter term, simply as " distribution."

This problem requires some description and explanation, in order that the student may not mistake its nature. The term " distribution of wealth," as used in this and the two following chapters, does *not* refer to the carrying about, or the moving, or the transporting, of forms of wealth. Rather, the term refers to a division or apportionment of the industrial income which numerous industrial specialists have combined to produce. Apportionment among whom? Among those individuals who have combined in its production.

Suppose, for example, that in order to secure the advantages of the division of labor, large numbers of people have combined in the production of shoes. This means that they merge their various efforts in the different phases of shoe manufacture. The output of shoes constitutes wealth which these people have produced jointly. Suppose that the shoes produced in a given year sell wholesale for $80,000. This sum is, roughly speaking, the money income which represents the goods produced jointly. It is the income of the shoe manufacturing business, measured in terms of money.

Stated very broadly, the problem of distribution is to determine how the money income of industry is divided among those who have aided in production.

220. The problem prior to the Industrial Revolution. — The problem of distribution grows out of the coöperation of different individuals through the division of labor. For this reason there must have been some such problem ever since men first began to coöperate with one another for purposes of production.

Until the Industrial Revolution, however, the question was a relatively unimportant one. Three hundred years ago, most necessities were produced within the family circle. Consequently there was little or no question as to whether or not individuals outside the family ought to be rewarded for having helped in the production of those commodities. If one member of the family made an entire pair of shoes, for example, he was clearly entitled to those shoes, at least so far as economic principles are concerned. Even where different members of the family combined to produce a pair of shoes, or an article of clothing, the small number of persons involved, as well as the close identity of interests among the family members, kept the problem of distribution from becoming a serious one.

Cutting Room in a Modern Shoe Factory

Such enterprises as large-scale shoe manufacture complicate the problem of distributing the joint income of industry.

221. Effect of the Industrial Revolution upon the problem. — The Industrial Revolution greatly increased the importance of the problem of distribution. The vast majority of goods are now produced by the joint efforts of numerous individuals who are not bound together by family ties. At the present time, for example, shoes are produced, not by a single workman, nor by the members of a single family, but by the combined efforts of numerous specialists. The cattle grower, the transportation agent, the tanner, the individuals who supply the enterpriser with land and capital, groups of factory laborers, the enterpriser who initiates and conducts the whole process of shoe manufacture, these and numerous others are involved in the production of a single shoe. The welfare of millions of our people is involved in the distribution of industrial income among those who coöperate in such enterprises as this.[1]

222. Four groups of people figure prominently in the distribution of wealth. — The individuals who figure prominently in production, and hence in the distribution of wealth, may be classified into four groups. These are landowners, laborers, capitalists, and enterprisers.

(*a*) *Landowners* constitute a first great group which is involved in production, and hence in the distribution of wealth. To be strictly accurate we should say "owners of natural gifts" rather than "landowners." But since "natural gifts" is rather an indefinite term, and since it is land which is to us the chief gift of Nature, we may lump such natural gifts as rainfall, climate, waters, minerals, forests, and soil under the name of land. Though some landowners may personally lead a life of ease and idleness, they may nevertheless control vast amounts of land. For this reason they affect the production of wealth, and play a part in the distribution of wealth.

(*b*) *Laborers* are a second important group which is involved in the distribution of wealth. As we have seen, Nature will never yield man a living, unless man connects with Nature by means of labor. Some labor is primarily physical, as in the case of a man who digs ditches or sweeps the streets. Other labor is primarily mental, as in the case of a bookkeeper or an enterpriser. Some people like to draw fine distinctions between physical and mental labor. However, there is little practical necessity for this, because most labor is a combination of physical and mental labor. For this reason we really ought to speak of labor, not as being "physical" or "mental," but as being "*primarily* physical" or "*primarily* mental."

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[1] It is true, of course, that many goods are still produced, either by one person, or by a very small group of individuals. For instance, a custom shoemaker may still make an entire shoe, a custom tailor may still make a suit of clothes, and a farmer and a few helpers may grow cattle or raise grain. In such cases, of course, the problem of distribution is unimportant. On the other hand, an extensive division of labor is typical of numerous types of American industry, and whereever such a division of labor exists, there develops the problem of distributing the income produced jointly.

THE BETHLEHEM STEEL WORKS, BETHLEHEM, PENN.

A large and complex business, which requires the coöperation of all of the four factors of production.

The chief point to bear in mind in discussing labor, however, is that labor includes all effort engaged in for the purpose of getting a living. *Mental labor is as truly labor as is physical labor.* Some persons carelessly or ignorantly assume that it is impossible for an individual to "work" with his brain; yet such forms of mental labor as study, planning, and invention may be more exhausting than the most strenuous physical labor. Moreover, such forms of mental labor may be infinitely more valuable to the community than mere physical labor.

(*c*) *Capitalists* are a third important group which is involved in the distribution of wealth. Obviously, such forms of capital as machines, factories, work horses, railroads, and money, are very important in production. For this reason the individuals who own these and other forms of capital play an important part in the distribution of wealth. Though some capitalists may personally lead a life of ease and idleness, they may nevertheless control vast amounts of capital. For this reason they affect the production of wealth, and play a part in the distribution of wealth.

(*d*) *Enterprisers* are a fourth group which is involved in the distribution of wealth. Without enterprisers modern production would languish. A community may be backward industrially until a shrewd enterpriser enters it. The skilful enterpriser sees a chance to make money, and to that end he puts land, labor, and capital to work upon projects which would be ignored by most men. Thus an enterpriser may add to the wealth of the community by turning out a new product, or by improving or increasing the amount of a familiar product. The enterpriser is primarily a mental worker. Imagination, judgment, patience, and ingenuity are his chief mental tools.

Land, labor, capital, and enterprise are essential to modern production. For this reason they are often spoken of as the "factors of production." Under our present economic system each of these factors is controlled by a group of people. Landowners control land, laborers control labor, capitalists control capital, and enterprisers control enterprise. Because the production of wealth requires the use of all four of these factors, the groups of people in control of those factors must be permitted to share in the wealth produced jointly.[1]

223. The case assumed. — The problem of distribution is so vast and so intricate that no one has ever attempted to analyze all of its phases. If we wish to grasp the essential nature of the problem, therefore, we must be content to assume a simple and well-defined case.

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[1] For a discussion of the interdependence of the factors of production, see the *Readings*, pages 213–215.

We shall assume that the landowners, laborers, capitalists, and enterprisers are combining in production. For the time being, we shall assume the separation of these groups. By this we mean that in our assumed enterprise, land is supplied by landowners, that capital is supplied by capitalists who have nothing to do with the land supplied by landowners, that labor is supplied by laborers who have no connection with landowners or capitalists, and that the enterpriser is still another person, contributing only his enterprising skill.

In actual life, of course, it often happens that one individual supplies both land and capital in a given enterprise, or that one person furnishes both enterprising skill and at least a part of the capital used in the business. However, complicated cases of this kind cannot be discussed until we have untangled the problem involved in the relatively simple case which we have assumed.

224. Industrial income is measured in terms of money. — It should be borne in mind that when we speak of the distribution of income produced jointly, we are speaking in terms of money, rather than in terms of the goods actually produced. Suppose that landowners, capitalists, laborers, and enterprisers combine in the production of steel rails. Steel rails are the wealth produced jointly, but of course none of the individuals who has shared in the production of this wealth wants to take home a steel rail or two as his reward for aiding in production. What is wanted by all those who participate in production is money, so that they may buy whatever they like. What really happens is that the steel rails are sold by the enterpriser to some one who has need for them, and a proportion of the money thus secured is then divided among those who have aided the enterpriser in the production of steel rails.

225. Distribution is in the form of shares. — When we speak of the reward which goes to the landowner, the capitalist, the laborer, and the enterpriser, we mean, *not absolute amounts, but shares*. A homely example will illustrate this point.

Suppose that I am in charge of a group of boys who are camping out. Each day I bake a pie, which by agreement is divided equally among us. Obviously, the amount which each gets will be proportionate to the amount going to each of the others. If there are four of us, each will get a quarter of a pie. No one person can receive more than a fourth, because no pie can be divided into more than four fourths. Suppose now that our flour and other supplies are running short, and that one day the pie I bake is much smaller than usual. Naturally the share going to each person will be smaller than formerly. In such a case it would be unfair for any of us to claim that he has been unfairly treated because he has received a smaller piece than usual. He, as well as all of the others, gets a smaller piece simply because there is less to divide than formerly.

The principles involved in this little story underlie the whole problem of distribution in its most vital particulars. Industrial income is a pie to be divided among the four groups which have aided in production. Each group will receive, not an absolute and fixed amount, but a *share*.[1] At the outset of the discussion we can be sure of one fact, namely, that since all of the individuals involved in, say, shoe manufacture must be paid out of the price of the finished product — the pie — the combined sums received by them cannot long exceed the total value of the product.

Unfortunately, this fact is often overlooked. Many of the individuals who aid in production often become so intent upon securing their reward that they are over-ready to explain *their* contribution to the product, but loath to give due credit to those who have coöperated with them. Sometimes laborers demand an increase in wages, but at the same time protest that they are willing that the other three groups receive as much as formerly. Such an attitude is similar to that of a boy who wants a third of a pie, but who is perfectly willing that each of his three companions shall continue to receive a fourth of that pie. Sometimes, too, individuals become so intent upon receiving a fixed reward for their services to production, that they cannot or will not understand that the amount coming to them may have to be decreased because the net income of the enterprise — the size of the pie — has decreased.

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[1] Not necessarily an equal share, however.

226. The position of the enterpriser. — In an earlier part of the text,[1] we saw that the function of the enterpriser is to coördinate and direct other industrial specialists who combine with him in a particular business. Since it is the enterpriser who is in control of the business, it is clear that he in some measure directs the distribution of wealth.

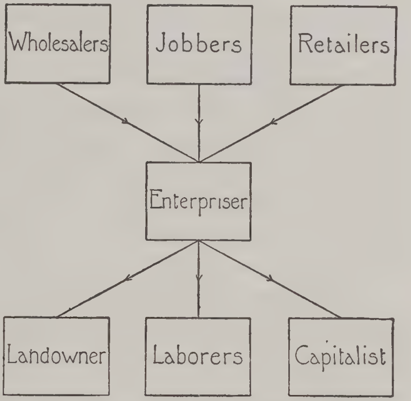

Chart Showing the Position of the Enterpriser in the Distribution of Wealth.

It is assumed that the enterpriser sells the product to jobbers and retailers, as well as to wholesalers. The money received from these groups is used by the enterpriser to pay for the land, labor, and capital which he is using, as well as to pay other expenses, and to allow himself a profit.

For example, an enterpriser may believe that the manufacture of shoes is a "good proposition." The enterpriser resolves to set himself and the other three factors of production to work at manufacturing shoes. He bargains with the *landowner* for the use of land on which to build a factory. Either directly, or through the medium of a banker, the enterpriser bargains with a capitalist for the use of money with which to buy machinery and other forms of capital. He bargains with numerous *laborers* for their labor.

Protected in a legitimate enterprise by the government, the enterpriser establishes himself as a manufacturer of shoes. Since he is in control of the enterprise, it is he who pays the landowner, the capitalist, and the laborers, for their respective contributions toward the finished shoes. Of course, the amount which the enterpriser pays these individuals is not arbitrary, as we shall shortly see. It is simply that the joint income of the enterprise flows to members of the other three groups through the hands of the enterpriser.[1]

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[1] Chapter VII.

227. Why the enterpriser wants the use of land, labor, and capital. — Why does a shoe manufacturer want the use of land, labor, and capital? Why, so that he can manufacture shoes, of course! That is quite true, but we gain something by analyzing this simple answer.

The enterpriser wants the use of land, labor, and capital, because each of these goods is essential to shoe manufacture. Each of these goods has the power to satisfy the wants of the enterpriser, or, in other words, each of these goods has *utility* to the enterpriser. Just as an apple has utility to a hungry boy, so the use of land, labor, and capital has utility to the enterpriser.

It might be objected here that the boy desires an apple to satisfy his want directly, while the enterpriser wants the use of land, labor, and capital, not to satisfy a want directly, but only to be able to manufacture goods which will later be used for the direct satisfaction of wants. It is true that the utility of the apple is direct, while that of the use of land, labor, and capital is indirect or derived. But fundamentally the two cases are similar. A housewife who buys oranges for her personal consumption may act in precisely the same manner as though she were buying the oranges to feed to a boarder. A retail produce dealer may bid for a turkey for his own consumption in precisely the same manner as he bids for a turkey to be retailed in his store to some customer. An enterpriser who demands an automobile for pleasure riding may act precisely as he would if he were seeking an automobile to be used for productive purposes. So far as the effect upon the market is concerned, it makes no difference whether the utility to the buyer is direct and immediate, or whether it is indirect and derived.

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[1] For a description of the part played in industry by the enterpriser, see the *Readings*, pages 209–211.

Utility, then, explains the enterpriser's demand for the use of land, labor, and capital. It should be understood, of course, that each of these three factors has utility for him because of its *productivity*, that is to say, because each of these factors has the power to aid him in production.

228. Distribution involves the interaction of demand and supply. — We have seen that, from the standpoint of the enterpriser, distribution is largely a problem of buying and selling. Since buying and selling are affected by the interaction of demand and supply, it follows that distribution from the enterpriser's standpoint is likewise affected by the interaction of demand and supply.

On the one hand stands the enterpriser, who demands the use of land, labor and capital. The enterpriser is a buyer who wishes these goods because they have utility to him.

On the other hand stand the landowners who control the supply of land, the laborers who control the supply of labor, and the capitalists who control the supply of capital. These individuals are sellers, who wish to exchange their respective goods for the money of the enterpriser. They expect to exact a price from the enterpriser because their goods have utility to him, and because he cannot get those goods without paying for them.

229. Summary and forecast. — The term " distribution of wealth " refers, then, to the apportionment of the joint income of industry among those who have combined to produce it. Formerly unimportant, this problem has become very important since the Industrial Revolution. In order to bring out the essential principles involved in this problem, we have assumed a simple and well-defined case. We assume that each of the four factors of production — land, labor, capital, and enterprise — is furnished by different individuals. All of the individuals who share in distribution receive their reward in the form of money. Furthermore, each gets a share, rather than an absolute amount. Since it is the enterpriser who stands at the helm of industry, it is he who receives the income of the business and in turn distributes part of this income to those who have helped him in production. From the standpoint of the enterpriser, distribution is largely a problem of buying and selling. The enterpriser represents a demand for the use of land, labor, and capital, while the supply of these goods is controlled by the landowners, the laborers, and the capitalists, respectively. The enterpriser wants these goods because they have utility to him; those who control the supply of these goods expect to exact a price for them because they have utility to the enterpriser, and because the enterpriser cannot get them without paying for them.

In the next chapter we shall continue the discussion of the distribution of wealth by inquiring into the influences which affect the demand for, and the supply of, land, labor, and capital.

Questions on the Text

1. Explain clearly what is meant by the term "distribution of wealth."
2. What was the character of this problem prior to the Industrial Revolution?
3. What was the effect of the Industrial Revolution upon the problem?
4. Why are landowners important in the distribution of wealth?
5. What can you say with regard to the relation between physical and mental labor?
6. Why are laborers involved in the distribution of wealth?
7. Why must capitalists be considered in the distribution of wealth?
8. Explain the effect which a skilful enterpriser may have upon a community.
9. Explain carefully the case assumed for a discussion of the distribution of wealth.
10. In what form does each of the four groups receive its share of the joint income of industry?
11. Explain the bearing of the story of the pie upon the statement that "distribution is in the form of shares."
12. Explain clearly the position of the enterpriser in distribution.
13. Show that the enterpriser wants the use of land, labor and capital because of the utility of these goods to him.
14. What do the landowner, the laborer, and the capitalist want of the enterpriser?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XV.)

1. Why was the American colonist obliged to be self-sufficing? (page 204.)
2. Why was the distribution of wealth not a serious problem in colonial times? (page 206.)
3. Discuss the interdependence of the different parts of the country since the Industrial Revolution. (pages 206–207.)
4. What is the meaning of the statement that "the people of a mighty nation have been woven together into a web of interdependent relations"? (page 207.)
5. What accounts for the rise of the enterpriser? (page 209.)
6. At what stage of industrial development was there little need of the enterpriser? (page 209.)
7. Under what circumstances has the enterpriser become a necessity? (pages 209–210.)
8. What has Professor Walker to say concerning the future of "the principle of mastership in industry"? (pages 210–211.)
9. What can be said as to the number of people in this country who are directly affected by the problem of the distribution of wealth? (page 211.)
10. What can be said as to the organization of industrial companies in the United States in April, 1922? (pages 211–212.)
11. Explain Professor Carver's statement that "neither land, labor, nor capital, is alone capable of producing anything of value." (page 214.)
12. Explain clearly the effect upon production of a relative abundance of land. (page 214.)
13. Explain clearly the effect upon production of a relative scarcity of land. (page 214.)
14. What is meant by saying that "distribution involves a contest"? (page 216.)

Topics for Investigation and Report

1. The problem of the distribution of wealth, as defined by different American economists of the present generation.
2. The distribution of wealth prior to the Industrial Revolution.
3. Instances in your community in which individuals are relatively little affected by the problem of distribution of wealth as stated in this chapter.
4. Effect of the Industrial Revolution upon the wage-earning class.
5. Effect of the Industrial Revolution upon family life.

6. Instances in your community in which the distribution of wealth is a pressing problem.
7. Extent to which landowners in your community themselves work their land, and the extent to which they rent out their land to be used by others.
8. Make a list of types of labor which are primarily physical.
9. Make a list of types of labor which are primarily mental.
10. Interview a laboring man for his opinion of the statement " that a man can labor with his brain, and be just as valuable to the community, or even more so, than a man who does strenuous manual labor."
11. Number of enterprisers in your community.
12. Cases in which communities in your section of the country have become prosperous because of enterprising ability.
13. Interview a laboring man on the subject of wages as a share, rather than as an absolute amount.
14. Make a study of various enterprises in your community. Try to discover, in individual cases, why the enterpriser wants the use of land, labor and capital.
15. Interdependence of the factors of production.

Questions for Classroom Discussion

1. To what extent is the average farmer affected by the problem of the distribution of wealth?
2. Do you see any relation between the growth of our cities and the problem of distributing wealth?
3. Under what circumstances might an enterpriser be obliged to decrease the wages of a workman, although that workman is turning out more units of product than formerly?
4. Sometimes laborers declare that " the employer runs business to suit himself." Discuss.
5. Suppose that you were an enterpriser. How would you attempt to estimate the utility to you of land?
6. How would you attempt to measure the utility to you of capital?
7. How would you attempt to measure the utility to you of labor?
8. Discuss the statement that " an enterpriser must take account of the principle of diminishing utility when he bargains for the use of land, labor and capital."
9. Discuss the statement that " it is unethical for an enterpriser to give a workman only as much as he is *obliged* to give."
10. Discuss the statement that " distribution involves a contest."
11. Assuming no decrease in the amount of product, why do wages tend to increase when the price of the product increases?

12. Laborers are sometimes condemned because they seem intent upon increasing their wages, rather than upon the "public welfare." Discuss this criticism.
13. Which do you think is of greatest social importance, the reward going to landowners, the reward going to laborers, the reward going to capitalists, or the reward going to enterprisers?
14. Discuss the statement that "it is impossible to say that any one of the four factors of production is more important than the others."
15. Discuss the statement that "although it is land and not the landowner which is a factor in production, we must really consider the *landowner* a factor in production as long as private property exists."

CHAPTER XVI

DISTRIBUTING THE INCOME OF INDUSTRY (Continued)

a. The demand for land, labor, and capital

230. The demand for land. — The two fundamental reasons why enterprisers express a demand for the use of land are fertility and location.

(*a*) *Fertility.* — Fertility refers to the natural endowment which land enjoys in the form of moisture, climate, and soil elements. It is a matter of common observation that plots or tracts of land vary widely in fertility. Some lands are rich and strong, and will yield good crops year after year without being manured or fertilized. Other plots of land yield well for a few years, but are quickly exhausted. Still other soils are

A Fertile Tract of Land

Being prepared for planting by plows drawn by a gasoline tractor.

either so dry, or so devoid of such important soil elements as nitrogen, potassium, and phosphorus, that at best they yield relatively small returns. Naturally, enterprisers who wish to use land to grow crops of various kinds will be affected by the degree and type of fertility possessed by particular tracts.

AN AREA OF HIGH VALUES
A section of New York City.

(*b*) *Location.* — The demand for land is also affected by its location. Let us suppose that two plots are equally fertile, and that the investment of $500 on each will produce crops worth

$800. But let us suppose that one plot is near the railroad, while the other plot is a considerable distance from the railroad. In such a case the enterpriser using the plot near the market can get his grain to the market at a relatively small expense, while the enterpriser whose land is further removed will have to spend a considerable sum to haul his grain to market. So far as fertility is concerned, these two plots might be equally in demand; however, the difference in their location will make the demand for them unequal. The plot nearest the market, of course, will be more in demand than the plot which is further removed. In most cases, plots of land differ both in fertility and with respect to suitable location.

We have been speaking of location as affecting the demand for land in *rural* districts. Let us notice, now, that it is in *urban* communities that location exerts its most powerful influence upon the desirability of land. Land in cities is used almost entirely for building sites. This means that the question of fertility is of practically no importance, while the factor of location is of supreme importance. Plots near a harbor or a railroad terminal are highly desirable as manufacturing sites. Lots near busy corners are greatly in demand by retail traders, because numerous potential customers pass these places daily. Sites near attractive scenery, or near street car lines, or "in a good neighborhood," are greatly in demand for residences. In these and many other ways location strongly influences the demand for urban plots.[1]

In farming districts, then, both fertility and location affect the demand for land. In cities, on the other hand, it is primarily location which affects the demand for land.

231. The demand for labor. — In general the demand for labor depends upon the physical and mental qualities of laborers.

(*a*) *The physical qualities of laborers.* — The physical qualities of a laborer help to determine his productivity, and hence affect the demand for his services. Strength and good health are of great importance to the laborer, especially in those employments which demand a great deal of physical exertion. Even in the most sedentary of employments, such as bookkeeping and other forms of clerical work, physical vigor and endurance are important. A relative freedom from sickness, and immunity to dust and unusual temperatures are additional reasons why laborers may be in demand. An enterpriser wants the laborer for the purpose of getting work done, and naturally a weak or delicate individual is generally less desirable than he would be if he were vigorous.

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[1] For a more detailed discussion of urban plots, see the *Readings*, pages 220–223.

IN A COAL MINE

Work of this kind requires considerable physical strength and endurance.

(*b*) *The mental qualities of laborers.* — Men who are by nature intelligent, quick-witted, and eager to learn, are more in demand than stupid, uninterested laborers. In this day of complex machines, a natural ingenuity at mechanical things is of great importance. Especially in the higher mechanical and manufacturing pursuits, skill is of increasing importance. The ability to repair machinery, to hit upon new ways of doing things, to use judgment in dealing with new situations, all these add to the attractiveness of the laborer. Above all, the possession of trade or technical education is a distinct asset to the workman. The trained engineer, chemist, or business executive owes much of his productivity to formal training. Moreover, with the increasing complexity of the technical aspects of industry, industrial education and training are becoming more and more important. Even a general education, designed to develop the individual into a cultured person, has its effect upon the abilities of the workman. To the extent that this is so, such education affects the demand for laborers.

232. The demand for capital. — The demand for capital is affected by a wide variety of circumstances, the adequate discussion of which would require a separate volume. We shall accordingly content ourselves with pointing out four of the more important influences which affect the demand for capital. These are the character of enterprisers, differences between industries, differences between localities, and time considerations.

(*a*) *The character of enterprisers.* The demand for capital will depend partly upon the character of enterprisers. Some men seem to have a golden touch, and are able to employ capital in such a way as generally to make high profits. These men will be in the market for capital more often than men with less vision. Enterprisers who see an opportunity to employ capital, but whose abilities are so limited that they cannot feel sure of high profits, will tend to evidence a relatively slight demand for capital. Again, timid enterprisers, who are afraid, either to start a new business or to expand their old one, will demand relatively little capital.

(*b*) *Differences between industries.* — The demand for capital will depend upon the industry in which it is to be invested. It may be that capital employed in farming will yield small profits, and hence the farming industry will demand capital relatively little. On the other hand, a speculative enterprise, such as mining, or the manufacture of a novelty, may promise so high a return that capital is greatly in demand by enterprisers desiring to develop that type of business.

(*c*) *Differences between localities.* — Again, the demand for capital will depend upon the region or locality. In an old and stagnant community, capital may be little in demand; in a new and rapidly-developing region, such as parts of the Far West, there is a very strong demand for capital. Certain sections of the Far West are unfit for anything except grazing, and as a result there is a relatively small demand for capital in these sections. On the other hand, capital is greatly in demand in those parts of the Far West which are now arid or semi-arid, but which are being rendered more productive by irrigation.

(*d*) *Time considerations.* — Lastly, the demand for capital will depend upon the time. Business moves roughly in periods of alternate boom and depression, and as a result the demand for capital varies greatly. When business is booming, numerous enterprisers demand capital, because they see opportunities to make a profit. But when times are dull and people are buying relatively little, capital will generally be in less demand.

233. The relative proportions of the four factors of production. — In concluding our summary of the forces influencing the demand for land, labor, and capital, let us notice the importance of the relative proportions of the four factors of production. Modern industry requires the *combination* of land, labor, capital, and enterprise. The relative importance of these factors varies with the conditions, but *all* are necessary to modern industry. Since all are necessary, it is obvious that the demand for one factor of production will depend, to a considerable degree, upon the extent to which the others are relatively scarce or abundant. Some examples will clarify this important point.

If *land* is scarce, relatively to the other factors of production, there are relatively few opportunities for labor and capital to combine with land. As a result the demand for labor and capital will tend to be relatively small, because enterprisers see few chances of employing labor and capital in connection with land. If land is abundant, however, enterprisers will be stimulated to demand labor and capital in order to make a profitable use of that land.

If *labor* is scarce, relatively to the other factors of production, enterprisers will evidence a relatively small demand for land and capital, because it would be useless to rent a large amount of land, and buy numerous machines and other forms of capital, if there were not enough laborers to operate this land and capital. But if labor is abundant, enterprisers will be encouraged to demand land and capital, because there are plenty of laborers to work the land and operate the capital equipment.

If *capital* is scarce, relatively to the other factors of production, the demand for land and labor will tend to be relatively small. Suppose that, in this case, the enterpriser wished to borrow money ("capital") in order to buy ploughs and other agricultural machinery. If an enterpriser could secure only a very small loan, he could buy very little mechanical equipment. In such a case it would do little good to rent a great deal of land and hire a large number of laborers, because the scarcity of machines would prevent the best use of the land and the laborers. But if capital is abundant, then enterprisers will be stimulated to demand land and labor in order to make an effective use of the large supply of capital.

Lastly, if *enterprise* is scarce, relatively to the other factors of production, the demand for land, labor, and capital tends to be relatively small. This is so because the demand for these three factors is directly dependent upon the existence of enterprisers who wish to combine land, labor, and capital in a productive business. If, however, enterprising ability is abundant, then there is a relatively large number of individuals seeking land, labor, and capital in order to carry on business. As a result, the demand for each of the other three factors will tend to increase.

Thus the demand for land, or for labor, or for capital, will depend upon the relative scarcity or abundance of the other factors of production.

b. The supply of land, labor, and capital

234. The meaning of supply again. — Before we discuss the influences which affect the supply of land, labor, and capital, the student should make sure that he understands clearly the meaning of the term "supply." Supply, we saw in a previous chapter, does not mean the total amount of a thing in existence, but only the amount which is available for use and which is offered in the market.

Suppose that in a given section of the country there are 16,000,000 acres of land, but that only 3,000,000 acres of this are available for agricultural purposes. In such a case the supply of agricultural land in that section is 3,000,000 acres, and not 16,000,000 acres. So far as the demand for agricultural land at a particular time is concerned, the remaining 13,000,000 acres might as well not be in existence at all.

UNEMPLOYED

If these men are unable to work, or are habitually unwilling to work, they cannot be counted as part of the labor supply in this community.

Similarly, the supply of labor is not measured by the number of laborers in a community, but by the number of those laborers who are capable of working and who offer to work. If a community contains 500 laborers, 200 of whom insist upon idling about the streets, the supply of laborers is not in excess of 300.

If for some reason half of these 300 laborers habitually refuse to bargain with a particular enterpriser, the supply of laborers is, for that enterpriser, reduced to 150. Not the amount in existence, but the amount available for use, is the basis of judging as to whether the supply is large or small.

235. The supply of land. — The supply of land in the United States is limited by our physical boundaries. Within the boundaries thus set, however, the supply of different types of land is capable of slow increase. Such projects as drainage, irrigation, and clearing the forest have the effect of increasing the supply of agricultural land available for use. The supply of urban plots is increased by filling in waste places, and by building up the shores of lakes, rivers, and harbors. In a number of American cities busy office buildings and

Arid Land before Irrigation

The Same Land after Being Irrigated

In this case, irrigation has increased the amount of land available for agriculture.

factories stand upon sites which were once covered with water, but which man's ingenuity has reclaimed.[1]

As the population of the country increases, and as the demand for various types of land increases, we may expect to see greater and greater efforts to increase the supply of land available for use. It should be remembered, however, that the supply of land can be increased only very slowly, and even then only up to a certain point.

236. The supply of unskilled labor. — To clarify the discussion of the supply of labor, we may divide labor into two classes: skilled and unskilled. The sources of unskilled labor in the United States are two:

(*a*) *Natural increase.* — It is a significant fact that those groups of people who are poorest have the largest families. These large families, reared in comparative poverty, and often denied a chance to learn a trade, contribute heavily to the ranks of unskilled labor.

(*b*) *Immigration.* — Throughout our history a second great source of unskilled labor in this country has been emigration from Europe. Some of our immigrants have been skilled artisans, but the great majority of them must be classified as unskilled laborers.

The supply of unskilled labor in the United States is relatively abundant. This is due, partly, to the tendency of many types of individuals to marry and rear families, without first assuring themselves that they will be able to train and educate their children for the skilled trades. The large supply of unskilled labor in the United States is also partly due to the ease with which masses of European immigrants have been permitted to enter this country.

237. The supply of skilled labor. — Some persons are by nature more skilful than others, but skill is primarily an acquired characteristic, rather than inborn. The most alert individual has to be trained before he can run a dynamo, or analyze petroleum into its constituent elements. Training and education constitute the great source of skilled labor.

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[1] See, in this connection, the case of New York City, *Readings*, page 222.

Most of our skilled workmen come from families in which the parents had sufficient intelligence, and sufficient income, to give their children some sort of industrial training. A carpenter or a mason, for example, is well aware of the advantages of a skilled workman over an unskilled laborer, so that he is likely to make efforts to give his own sons industrial training. Usually, too, such skilled workmen as carpenters and masons have an income sufficiently large to contribute toward the education of their sons.

ONE SOURCE OF OUR SUPPLY OF UNSKILLED LABOR

Immigrants at Ellis Island.

Relatively few of the children of unskilled workmen are able to secure the training and education necessary to lift them into the class of skilled labor. On the other hand, the widening scope of our school system, and the increasing attention which the school is devoting to vocational education is helping to provide practical training and trade education for children who otherwise would be deprived of such advantages.

238. The significance of the trade union.[1] — Since the Civil

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[1] For a further discussion of the trade union, see Chapter XXXIII, which deals with Industrial Relations.

War the trade union has been an important factor in influencing the supply of labor in the United States. The trade union organizes some of the workmen in a particular trade. Thus there may be, in a given city, a carpenters' union, a plumbers' union, a house-painters' union, and so on. With the consent of its members, the union attempts to influence the conditions under which enterprisers deal with laborers of the type included in the union. Thus a bakers' union in a given community may attempt to control the conditions under which enterprisers bargain with all bakers in that community. If the enterpriser wishes to bargain with bakers who are members of the union, he may find that the union has a great deal to say as to wages and other conditions of employment. If the enterpriser attempts to bargain with bakers who are not members of the union, the bakers' union may threaten to withdraw from his establishment all union bakers. Suppose there are 300 bakers in a given community, and that 200 of these belong to a bakers' union. If the union is strong, it may prevent certain enterprisers from hiring any of the 100 non-union bakers. Thus the union has restricted the supply of labor.

A TRADE SCHOOL

Here boys can learn a skilled trade under competent instruction.

Again, the bakers' union may restrict its own membership with the aim of securing higher wages for the relatively few union bakers. If the union is still able to dictate the conditions under which enterprisers may bargain with bakers, the union has still further restricted the supply of bakers.[1]

It is significant to note that only a small proportion of our laboring population is unionized. Probably not more than one eighth is found in unions. The highly skilled, and many of the semi-skilled groups, are organized into unions. On the other hand, the masses of unskilled laborers, as well as many of our semi-skilled workers, are not unionized. Thus the trade union has its chief influence upon the supply of skilled and semi-skilled labor, rather than upon the supply of unskilled labor.

239. The supply of capital. — As we have seen,[2] a first step in the formation of capital in modern times is the saving of money. If the money saved is actually used for productive purposes, it becomes a means of increasing the supply of capital. Assuming that the sums saved are actually used in production, the supply of capital will depend largely upon the degree to which people are saving money. What factors, then, encourage saving?

(*a*) *The desire to provide for old age.* — An important motive to saving is the desire of the individual to provide for old age. Money may " come easy " while we are young and vigorous, but after middle life has been passed decreased energy and failing strength tend to reduce earning power, and hence, also, to reduce money income. Accordingly numerous groups of people save against the period of old age. The money thus accumulated is deposited in savings banks, invested in stocks and bonds, paid to life insurance companies in the form of premiums, or otherwise invested. Ultimately, most of this money finds its way into productive enterprises.

(*b*) *Ambition.* — A second motive to saving is ambition.

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[1] For the methods by which the trade union seeks to influence wages, see the *Readings*, pages 231–232.

[2] Sections 165 and 166.

Many men are passionately intent upon success in business, and to the end of establishing themselves in business they may save large sums. The lust for power in the business world impels many wealthy business men to put aside large sums for further investment. Very often, saving is stimulated by the craving for the social distinction which wealth brings. The existence in our larger cities of an aristocracy built largely upon wealth stimulates saving on the part of those who desire to edge into this select class.

(*c*) *The effect of interest.* — Many thrifty people would save for the sake of accumulating the amounts saved from time to time, regardless of the payment of interest. For example, individuals saving against old age, or in the attempt to accumulate enough money to go into business for themselves, would probably save even if they were not paid interest on their money. But under modern conditions people who place their money in savings banks *are* actually paid interest, and moreover most people appear to be influenced by the rate of interest which is paid. Thus if the savings banks in a community pay 5 per cent interest, whereas formerly they paid only 4 per cent, the result is that many people will redouble their efforts to lay aside small sums for deposit in the bank. Similarly, if the rate of interest falls from 5 to 4 per cent, many people will be less intent upon saving than formerly.

(*d*) *The feeling of security.* — Of course, people who save money wish to be assured that those savings will not be lost, stolen, or squandered. Regardless of whether or not the savings banks of a community are sound, people must *believe* them sound before they will trust any appreciable amount of funds to their keeping. The failure of a bank may frighten whole communities, and cause many people to stop depositing sums in banks which are perfectly safe. On the other hand, a bank may attract depositors by the appearance of safety and prosperity, whereas in reality the bank is unsound. Generally speaking, banking is much safer than most people imagine. Nevertheless, people must be made to *believe* in this safety before they will save money consistently and effectively.

(*e*) *Facilities for saving and investment.* — Lastly, saving will be influenced by the extent to which there are facilities for saving and investment. A lack of savings banks in a community may help to explain the relatively small amounts saved by people in that community. On the other hand, considerable sums may be saved by the members of a community in which there is a number of savings banks, competing with one another for deposits. As people become more familiar with the nature of stocks and bonds, they tend to make an increasing use of these new avenues for investment. Saving is also encouraged when life insurance companies contrive new and easy methods of taking out policies.

240. Summary and forecast. — We began this chapter with a discussion of the influences which affect the enterpriser's demand for land, labor, and capital. Fertility and location are the two fundamental causes which affect the demand for agricultural land. In cities, fertility is unimportant, and hence location is almost the sole factor in determining the demand for land. The demand for labor is influenced by a variety of physical qualities, as well as by the mental qualities of the laborers. The demand for capital is largely dependent upon the character of enterprisers, upon differences between industries, upon differences between localities, and upon time considerations. Lastly, the demand for land, or for labor, or for capital will depend upon the extent to which the other factors of production are relatively scarce or abundant.

We discussed, too, the influences which affect the supply of land, labor, and capital. By supply is meant the amount available for use, rather than the amount actually in existence. The supply of land may be increased by drainage, irrigation, clearing forested areas, and filling in waste places. The supply of unskilled labor depends partly upon natural increase and partly upon immigration. The supply of skilled labor depends partly upon the number of persons who are being trained and educated for the skilled trades. The trade union affects the supply of labor, but chiefly that of skilled and semi-skilled labor. Lastly, we considered the supply of capital. Assuming that savings are ultimately used for productive purposes, the supply of capital will increase when people increase their savings. The desire to provide for old age, ambition, the lure of interest, these are the most important motives to saving. Saving will also be encouraged by the feeling of security on the part of savers, and by the existence of adequate facilities for saving and investment.

A WINDOW POSTER

Illustrating the way in which savings banks may encourage thrift.

Having seen the chief influences which affect the demand for, and the supply of, land, labor and capital, we are now ready to draw our conclusions regarding the distribution of wealth. In the next chapter we shall conclude our discussion of this important problem.

Questions on the Text

1. Illustrate the influence of fertility upon the demand for agricultural land.
2. Illustrate the influence of location upon the demand for agricultural land.
3. Illustrate the influence of location upon the demand for urban tracts.

4. What physical qualities influence the demand for labor?
5. What mental qualities are important in the laborer?
6. How does the demand for capital depend upon the character of enterprisers?
7. Show that the demand for capital varies with the industry.
8. Show that the demand for capital may vary with the locality.
9. How will the demand for capital vary with the time?
10. Explain carefully and in detail the statement that "the demand for one factor of production will depend, to a considerable degree, upon the extent to which the others are relatively scarce or abundant."
11. In what ways is the supply of land in the United States being increased?
12. What are the two sources of the supply of unskilled labor?
13. What is the source of skilled labor?
14. What is the relation of the trade union to the supply of labor?
15. Name some reasons why people save money.
16. What is the effect of the rate of interest upon saving?
17. What is the relation between saving and the feeling that the funds saved will be safe?
18. What is the relation between saving and facilities for saving and investment?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XVI.)

1. Show how rent varies with fertility. (page 219.)
2. Show how rent varies with location. (pages 219–220.)
3. Upon what is the total value of the site of a city based? (page 221.)
4. Describe the manner in which different types of activities localize in different parts of a growing city. (pages 221–222.)
5. What are the two classes of urban land? (page 222.)
6. Describe the growth of New York City, and some of the effects of this growth upon relative land values. (pages 222–223.)
7. What place does the future hold in our economical provision? (page 224.)
8. Compare the value of present goods with the value of future goods. (page 226.)
9. What false notion concerning the productivity of capital has gained a wide circulation? (page 226.)
10. What is one reason for the spread of this false notion? (page 227.)
11. Explain the statement that "capital is inert matter, and by itself is absolutely sterile." (pages 227–228.)

12. What is the origin of the so-called income from capital? (pages 227–228.)
13. Give four reasons why the intelligent workman is more useful than the unintelligent workman. (page 230.)
14. Under what circumstances may the trade union force an increase in wages? (page 231.)
15. What is one way in which the trade union may seek to restrict the supply of labor? (page 232.)

Topics for Investigation and Report

1. Make a brief study of farm lands in your section with the purpose of ascertaining the extent to which they vary in fertility.
2. Make a study of farm lands in your section with respect to their relative distance from some city or town.
3. Methods of retaining or increasing the fertility of farm lands.
4. The extent to which improvements in transportation have tended to equalize the attractiveness of farm lands in your section.
5. Characteristics of an ideal urban site for manufacturing purposes.
6. Characteristics of an ideal urban site for retail trading.
7. Qualities which fit the individual to be an efficient manual laborer.
8. Qualities which fit the individual to be an efficient mental worker.
9. Nature and purpose of vocational education.
10. Extent to which the laboring population of your community is unionized.
11. Interview a local trade union official on the union's objection to unrestricted immigration.
12. The Malthusian doctrine.
13. Methods by which the savings banks in your community encourage saving.
14. Advantages of a life insurance policy.
15. Interview a local bank official as to the effect upon savings accounts of a change in the rate of interest paid by the bank.

Questions for Classroom Discussion

1. What is the effect upon the demand for land in a new region of an extension of a railroad into that region?
2. The distinction between intensive and extensive cultivation.
3. What circumstances determine whether a plot of land will be subjected to intensive or to extensive cultivation?
4. Sometimes our farmers are criticized because they produce fewer bushels of grain per acre than do some European farmers. What error do you see in this criticism?

5. What type of retail shop prefers to be located near schools and colleges?
6. What obstacles hinder the development of the trade union movement among unskilled workers?
7. Why is the trade union less developed among women workers than among male laborers?
8. What effect do you think the vocational education movement will have upon the wages of unskilled workers as a group?
9. What is the relation of vocational education to vocational guidance?
10. Has your work in high school changed your plans as to what occupation you wish to follow?
11. What is the importance of saving habitually, rather than irregularly?
12. Can saving be carried too far?
13. What effect may war have upon the tendency of people to save money?
14. Is saving morally justified if it is solely for the purpose of gratifying a desire for social distinction?
15. Discuss the motives for saving, in addition to those mentioned in the text.

CHAPTER XVII

DISTRIBUTING THE INCOME OF INDUSTRY (Concluded)

a. Rent, wages, and interest

241. Rent, wages, and interest are prices paid by the enterpriser. — We have said that the enterpriser is willing to pay for the use of land, labor, and capital, because each of these three factors of production has utility to him.

The price which the enterpriser pays for the use of land is called *rent.*

The price which the enterpriser pays for labor is called *wages.*[1]

The price which the enterpriser pays for capital is called *interest.*

The fact that these three prices are known by different names ought not to confuse the student. In each of these cases, the sum paid is an amount of money which the enterpriser pays for a factor of production. In each of these cases, too, the amount paid is supposed to represent the share of the industrial income which goes to a particular factor utilized by the enterpriser.

242. The law of the market again. — In an earlier chapter[2] we said that the price of goods was influenced by the so-called law of the market. This law was stated as follows: *At any given time, goods which are of the same kind and quality tend to sell for the same price.* Let us note here that this law applies to the price which the enterpriser pays the landowner, the laborer, and the capitalist. If we accept this law as a basis for discussion, it will affect our problem as follows:

(*a*) Rent, wages, or interest must be considered with reference to *a given time*. In order that the law of the market may apply to the prices which the enterpriser pays in the form of rent, wages, and interest, we must consider these prices at a particular time, rather than at different periods.

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[1] As used in this text, the term wages includes salaries.

[2] Chapter XIV.

(*b*) In one sense, *rent, wages, and interest must be considered separately*. The law of the market applies only when goods "are of the same kind and quality." Since land, labor, and capital are three distinct types of goods, they must, in an important sense, be analyzed separately. Of course, each factor of production gets a share, rather than an absolute amount, so that what one factor gets will at least ultimately affect what the others receive. So far as the price of the use of land, labor, and capital at a particular time is concerned, however, each of the three factors is best taken separately.

(*c*) Each *type* of land, labor, and capital must be considered separately. Not only is each of the three factors best considered separately, but each *type* of land, labor, and capital calls for separate treatment. Just as we cannot generalize as to the price of nutmegs and neckties, or clocks and tooth brushes, or turkeys and sugar, so we cannot generalize about the price of agricultural land and urban land, or about the price of skilled labor and unskilled labor. So far as the operation of the law of the market is concerned, skilled and unskilled labor may be as different goods as skilled labor and capital, or as capital and land. Thus each type of each factor must be taken separately, or the law of the market cannot apply.

243. Land, labor, and capital are subject to the principle of diminishing utility. — Just as apples and other consumers' goods are subject to the principle of diminishing utility, so this principle affects the enterpriser's demand for land, labor, and capital. The application of this principle to our problem may be considered from two angles.

(*a*) Land, labor, and capital, *as a group*, are subject to diminishing utility. An enterpriser who is just beginning a new business may experience a great need for land, labor, and capital. Up to a certain point he may be increasingly anxious to get more land, more labor, more capital. Thus the utility of these factors, taken together, may be increasing. But after a certain point his demand for all of these factors may slacken, because they have less power to satisfy his wants. This diminishing utility may be due to the fact that the enterpriser is unable to expand his business further, or it may be due to the fact that a greater amount of product would not yield sufficiently high profits to tempt him to expand his business. At any rate, all of the three factors are less in demand by the enterpriser after his business has been developed up to a certain point.

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Weaving Room in a Cotton Mill

If the enterpriser in charge of this factory were unable to get enough weavers, this scarcity of one of the factors of production might cause additional units of land and capital to have less utility for him than would be the case if weavers were abundant.

(*b*) In addition, each of the three factors, *taken separately*, is subject to the principle of diminishing utility. We have seen that land, labor, and capital are effective only when combined with enterprising skill. We have seen, too, that the demand for each of the three factors will depend somewhat upon the relative scarcity or abundance of the other factors of production. Thus if land is scarce, the utility of labor and capital may diminish after a certain point. Why? Because after the enterpriser has, say, crowded his small factory with machines and laborers, he may find it unprofitable to employ more labor and capital because of the lack of land on which to build an annex to his factory. Under the circumstances, labor and capital have less utility to him than formerly, because of the scarcity of land. Likewise, the enterpriser may have the advantage of cheap land and capital, but if labor is scarce, additional units of land and capital will eventually have less utility for the enterpriser because he is unable to get enough laborers to make an effective use of these additional units of land and capital.

A Tenement Family Making Artificial Flowers

The cost of hiring these people is so low that it does not pay to perfect machinery for the manufacture of artificial flowers. But if the supply of this type of laborer decreased greatly, and the wages of flower makers rose very high, then it might pay enterprisers to have this work done by machinery instead of by human fingers. In this case, there would be a substitution of capital for labor.

244. The enterpriser makes use of the principle of substitution. — Just as a housewife may buy eggs when meat is high in price, or oleomargarine when butter is dear, so the enterpriser may substitute one of the three factors of production for another. If labor is scarce and wages are high, a manufacturer may find it advantageous to buy machines to do the work formerly done by hand labor. This amounts to a substitution of capital for labor. On the other hand, if labor is plentiful and wages are low, while capital is scarce and interest rates high, the enterpriser may find it cheaper to have some of his work done by hand labor rather than by machines. This amounts to a substitution of labor for capital.

There are limits to the process of substituting one factor of production for another, but wherever it is possible and profitable the alert enterpriser applies this principle of substitution.

245. The market price for the use of land, labor, and capital. — The determination of the market price for the use of land, labor, and capital much resembles the manner in which the market price of other goods is determined. Each enterpriser may be considered as a buyer, who makes his calculations as to how much land, or how much labor, or how much capital, he wants at particular prices. The calculations of enterprisers as a group constitute the demand for each of these factors of production. The demand for these three factors will, of course, be affected by the influences described in the first part of the preceding chapter. In turn, landowners, and laborers, and capitalists have their calculations as to what they will offer at particular prices. The supply of land, labor, and capital will, of course, be affected by the influences described in the latter part of the preceding chapter.

In the resulting interaction between demand and supply, market price is set at a point at which demand and supply are in equilibrium. As in the case of the turkey market described in a previous chapter, the market price for the use of land, labor, and capital will be such as to give the greatest satisfaction to both buyers and sellers. In slightly different language, the market price will be such as to effect the transfer of the largest number of units at the highest price possible under the circumstances.

Just as in the case of the price of other goods, so the price paid for the use of land, labor, and capital fluctuates widely from time to time, depending upon a variety of circumstances. In the preceding chapter we saw that although prices may fluctuate widely, neither very high nor very low prices are likely to prevail over a long period of time. Now this reasoning applies also to rent, wages, and interest. For example, if the rate of interest is unusually high for a number of years, this tends to stimulate saving, and the resulting increase in the supply of capital will tend to bring down the rate of interest. Similarly, a continued fall in the rate of interest will tend to decrease the supply of capital, and ultimately to check the decline in the interest rate. Under conditions of free competition, and over a long period of time, rent, wages, and interest tend to fluctuate about a theoretical level which may be called normal.

b. The reward of the enterpriser is called profits

246. Profits consist in "what is left." — Let us turn, now, to the fourth factor of production, namely, enterprise.

Land, labor, and capital are utilized by the enterpriser, and are rewarded by him. The enterpriser has contracted to pay each of these a definite sum, which he cannot evade on the ground that he will not have enough profit left for himself. For a short period of time, at least, rent, wages, and interest are fairly definite amounts. The reward of the enterpriser, however, is indefinite. If, after paying rent, wages, interest, taxes, and other expenses, the enterpriser has anything left, this is his profit. Sometimes the enterpriser has a great deal left after paying his expenses, sometimes he has very little, and sometimes he has nothing at all, and even finds himself in debt.[1]

247. Factors influencing the amount of profits. — As to whether profits are large or small depends upon a variety of influences, only a few of which can be discussed here.

First, the amount which the enterpriser has left after paying his expenses will depend upon *fluctuations in the market.* War, flood, drought, storm, changes in fashion, these and other influences may increase or decrease the price which the enterpriser gets for his goods, and hence may affect profits. In a period of rising prices, many enterprisers make large profits, while in a period of increasing business depression the profits of the enterpriser may diminish rapidly.

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[1] For John Stuart Mill's discussion of the nature of profits, see the *Readings*, pages 241–243.

Second, the *ability of the enterpriser to manage his plant effectively* will influence his profits. Assuming a given price, the profits of the enterpriser will increase in proportion as he can lower his cost of production, for gross profits are roughly the difference between the cost of production and the price of his product. For this reason the enterpriser who can manage his plant effectively, who can practice important economies, and who knows how to substitute economical for expensive ways of doing things, will be able to decrease his cost of production and hence tend to increase his profits. On the other hand, enterprisers who manage their plant carelessly and inefficiently may find that on that account their cost of production is high, and profits relatively low.

WHERE EFFECTIVE MANAGEMENT IS IMPORTANT

Third, the *skill of the enterpriser in bargaining with the land-*

owner, the laborer, and the capitalist will affect his profits. Since industrial income is a kind of pie, which is to be shared among the factors of production, the size of the share of the three factors utilized by the enterpriser will affect *his* share. If an income of $20,000 is paid out chiefly to land, labor, and capital, the profits of the enterpriser may be very small. But if the enterpriser bargains for land, labor, and capital so skilfully as to secure them at a relatively low price, then his own share of the $20,000 may be the larger on that account.

Fourth, the *daring and originality* of the enterpriser affect his profits. The man who grasps an opportunity to introduce the public to a new style of hat or shoe, a new brand of candy, or a new form of breakfast food, may often get high prices for his product and consequently reap high profits. Of course, such enterprisers face the risk of loss, should the venture fail to capture the public favor.[1] Nevertheless the history of American industry is full of examples of men who have made fortunes by the successful marketing of novelties. This is particularly true where the novelty has been protected by patent or copyright.

248. Competitive profits tend toward a uniform level. — So long as competition is free, profits cannot continue to be higher in a particular industry than in competitive industries. Under conditions of free competition, thousands of keen-eyed enterprisers are constantly on the outlook for a chance to increase their income. They are ready to embark in any enterprise which promises a larger profit than that to which they have been devoting themselves.

Suppose that for some reason profits are higher in a particular industry, say, wheat-milling, than in other industries of a similar nature. In such a case enterprisers will tend to crowd into wheat-milling as rapidly as they can transfer their capital from their previous business. The result tends to be that the increase in the number of enterprisers engaged in wheat-milling leads to an abnormally large supply of the product. This large supply tends to lead to lower prices, and lower prices tend to lead to decreased profits. As a result of this process, profits in wheat-milling will at length sink to the level of profits in competitive industries. Thus competition between enterprisers tends to prevent the continuance of abnormally high profits in a particular industry.[1]

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[1] For a discussion of the effect of self-confidence upon economic activity, see the *Readings*, pages 243–245.

THE DEPARTMENT STORE

In a large city is an instance of an industry in which competition is very keen.

On the other hand, if profits remain very low for a long period of time, some enterprisers will withdraw, the supply will decrease, prices will tend to rise, and the decline in the rate of profits will be checked. Thus, as in the case of rent, wages, and interest, profits tend to fluctuate about a theoretical level which may be called normal.

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[1] It should be remembered, however, that this levelling process may take many years to work itself out. This is due, chiefly, to the slowness with which capital can be transferred from one industry to another. For a further discussion of this point, see the *Readings*, pages 245–247.

249. A caution. — At the beginning of the problem of distribution we assumed a relatively simple case, one in which the enterpriser was assumed to have secured land, capital, and labor from different individuals, he himself furnishing only enterprising skill. We cannot end this discussion, however, without cautioning the student that in many instances there is no such separation of function. For instance, an enterpriser may invest his own capital in the business which he himself is directing. Assuming that he rents land of a landowner and hires laborers, he, nevertheless, represents not one but two shares in distribution. Again, an enterpriser may hire capital and labor, and use his own land, in which case he is both enterpriser and landowner. Or the enterpriser may himself furnish land and capital, direct the enterprise himself, and hire only laborers. In such a case, the money which he "makes" is divisible into rent, interest, and profits. In all of these cases there is a mixed return to the man in charge of the business.

250. The value of theory to practical business men. — The student may grant the accuracy of the preceding section, but ask, How is this theoretical separation of an individual's income into rent, interest, and profits of *practical* importance? In many cases it may be of no practical importance, but sometimes such an enterpriser may learn something about his business by keeping such accounts as will divide his income into, say, rent, interest, and profits.

Suppose, for example, that I am an enterpriser, employing my own capital, my own land, *hiring* laborers, and directing my own business. Suppose that after I pay all expenses I have $5000 left at the end of the business year. If I do not keep accounts as suggested above, I may assume that since I have $5000 left I am doing well. But suppose that if I were not using my capital in this enterprise I could loan it out and receive $900 in interest; suppose, too, that if I were renting out my land instead of using it myself, I could receive $1200 a year for it; and suppose, again, that if I were working for a large corporation as manager, instead of working for myself, I could earn $3400. If I trace these items by means of analysis of the type illustrated in this and the preceding two chapters, I will see that I am less well off, financially, by working for myself than I would be if I loaned out my capital, rented out my land, and myself worked for someone else. This is true, because the $900 in interest, plus $1200 in rent, plus the $3400 in wages or salary, makes $5500, which is $500 more than I make from my own enterprise. Such is an example of the way in which practical men may use analysis to test the soundness of their position in the industrial field.

251. Summary and conclusion. — This chapter concludes our discussion of the problem of distributing the joint income of industry. Rent, wages, and interest are prices which the enterpriser pays the three factors of production utilized by him. If we base our discussion of these prices upon the law of the market, we can consider these prices only at a particular time. Moreover, the price of each particular type of land, labor, or capital must be considered by itself. The three factors are subject to the principle of diminishing utility, both as a group, and separately with respect to the relative scarcity or abundance of the factors with which each combines. The market price for the use of land, labor, and capital is determined in much the same way as is the market price for other goods.

The fourth factor in production is enterprise, which is rewarded in the form of profits. Profits are what is left after the enterpriser pays all of his expenses. The amount of profits varies widely. The chief influences affecting profits are market fluctuations, the managing ability of the enterpriser, the bargaining skill of the enterpriser, and the daring and originality of the enterpriser. Competitive profits also fluctuate between two limits. Due to competition among enterprisers, profits cannot continue to be higher in a particular industry than in competitive industries.

Questions on the Text

1. Define rent. Define wages. Define interest.
2. Explain carefully the relation of the law of the market to the problem of discovering what prices the enterpriser will pay for the use of land, labor, and capital.
3. Explain one way in which land, labor, and capital may have diminishing utility for the enterpriser.
4. Explain carefully a second way in which these factors may be subject to the principle of diminishing utility.
5. How may the enterpriser make use of the principle of substitution?
6. Outline, briefly, the way in which the market price of the three factors of production is determined.
7. Define profits.
8. How may fluctuations in the market affect profits?
9. How may profits be influenced by the ability of the enterpriser to manage his plant effectively?
10. How may profits be influenced by the skill of the enterpriser in bargaining with landowners, laborers, and capitalists?
11. How may profits be influenced by the daring and originality of the enterpriser?
12. Why cannot profits continue to be higher in a particular industry than in competitive industries?
13. Explain carefully how an enterpriser who personally contributes to his business part of the land and capital used, may gain by dividing his income into rent, interest, and profits.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XVII.)

1. What case does Professor Walker assume in order to explain rent? (page 234.)
2. Describe the emergence of rent in the case assumed by Professor Walker. (page 235.)
3. What is the "law of rent"? (page 236.)
4. What is the effect upon wages of ease and cleanliness? (page 237.)
5. How does Adam Smith illustrate the effect of cost of training upon wages? (pages 237–238.)
6. Explain the statement that "wages vary with the constancy of employment." (page 238.)
7. Name some factors which help to explain the increasing demand for capital. (page 239.)
8. Illustrate the statement that the demand for capital depends upon the rate of interest. (page 240.)

9. What is meant by saying that interest " tends toward an equilibrium level "? (page 240.)
10. Into what three shares may " gross profits " be divided? (pages 241–242.)
11. What has Adam Smith to say concerning " over-weening conceit "? (pages 243–244.)
12. What instinct in man is responsible for the universal success of the lottery? (page 244.)
13. What is the significance of the fact that many men neglect to carry insurance? (page 244.)
14. Explain the statement that " different employments hold out equal *expectations* of profits." (page 246.)
15. How may capital be transferred from one employment to another? (pages 246–247.)

Topics for Investigation and Report

1. Differences in rents in your community.
2. Differences in wages in your community.
3. Fluctuations in the rate of interest in your section.
4. Relation of the standard of living to wages.
5. Qualities of some typically successful enterpriser in your community.
6. The distinction between gross profits and net profits.
7. Profits as a reward for taking risk.
8. The effect of inventions upon profits.
9. Causes of the variations in profits in your community.
10. Nature and purpose of the replacement fund.
11. Effect of the Great War upon profits.
12. Interview an enterpriser upon the effect upon his business of a sudden rise in the rate of interest.
13. Instances of enterprisers in your community who contribute toward their business not only enterprising skill, but some or all of the land and capital which they use.
14. Interview an enterpriser of this type as to the advantage of analyzing his income into rent, interest, and profits.

Questions for Classroom Discussion

1. Discuss the statement that " to get the selling price of land we capitalize its rent."
2. How would you discover the probable market value of idle land?
3. Suppose that you have inherited an apartment house, which brings in a monthly rent of $300. Suppose that you wish to sell this house. What would be a fair selling price?

4. Interest rates within a given country tend to equality. Why?
5. Discuss the statement that " interest is the reward for abstinence."
6. Discuss the statement that " interest is paid, not for the use of money, but the use of capital."
7. Discuss the statement that " the wages of any person depend upon how badly his labor is desired."
8. Discuss the statement that " we must pay a doctor high fees because his training and education were expensive."
9. What is the relation between unrestricted immigration and the trade union movement?
10. What would be the effect upon the wages of unskilled laborers if the number of enterprisers were to increase?
11. Discuss the statement that in industry " one leader with an idea is worth a thousand ordinary men."
12. Discuss the statement that " taking risks is the chief function of enterpriser."
13. If you could demonstrate to an independent enterpriser that he would make more money if he were to give up his own business, and put himself, his capital, and his land, to work for other people, it might be that he would say, " I prefer to continue in business for myself." Why?
14. Discuss: " The two factors determining the business conduct of a producer are price and cost of production."
15. Suppose that the news gets around that enterprisers in the artificial ice business are making large profits. What would be the effect upon the price of ice?

CHAPTER XVIII

SUMMARY AND FORECAST

252. The purpose of this chapter. — The purpose of this chapter is to conclude our analysis of American industry, and to prepare the way for the discussion in Part III of the text. We shall begin by discussing some of the fundamental principles and institutions which constitute the bases of the capitalistic system. This done, we shall point out, briefly, the benefits of this system. Finally, we shall indicate the importance of grappling with the problem of reforming or perfecting our industrial system.

253. The capitalistic system. — Modern industry is sometimes said to be headless, because the numerous individuals engaged in it are not systematically controlled or directed by a single agency. It is often said to be planless, since laborers, employers, and other industrial agents concentrate upon their individual desires and needs, rather than upon the needs of the community or nation as a whole.

And yet there is in modern industry a certain regularity of outline, and a general tendency to follow the economic laws discussed in the preceding chapters of this book. These and other circumstances prevent us from concluding that our industrial life is entirely a haphazard affair. It may, indeed, be said that we have an industrial *system*. Because of the great importance in it of capital, this system is generally known as the "capitalistic system." Because of the importance in it of competition, it is also sometimes called the "competitive system."

254. Attitude of our government toward industry. — Government exercises so many vital functions that it is difficult to say which are of supreme importance. But if we look at government primarily from the point of view of the economist, we may say the chief functions of the government are two in number. In the first place, government should discourage individuals from harmful and destructive acts. In the second place, government should encourage individuals in activities which are helpful and productive. Let us notice something of what our government does, first, to discourage harmful and destructive practices, and second, to encourage helpful and productive activities.

(*a*) *Discouraging harmful and destructive activities.* — The most dangerous types of harmful activities have been suppressed by State and Federal law. We have enacted laws which prohibit such obviously dangerous practices as theft, robbery, personal violence, and various kinds of fraud. We have laws forbidding the preparation and exposure for sale of many types of impure foods. Of recent years our laws against various kinds of monopoly have become more and more drastic, because monopoly permits a few persons to enrich themselves at the expense of the many, and often by very questionable methods.[1] Where the employment of women and young children is an

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EGG AND POULTRY DEMONSTRATION CAR

Sent out by the United States Department of Agriculture.

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[1] For a fuller discussion of this point, see Chapters XXVIII and XXIX.

evil, there are often laws forbidding or controlling the employment in industry of these groups.[1] Generally throughout the United States there are laws providing for factory inspection, the screening of dangerous machinery, the ventilation of work places, and other safeguards. Such laws protect the workers against the greed and carelessness of employers, as well as against the unavoidable risks of industry.

These examples will illustrate the manner in which law suppressess the most glaring cases of activities which are harmful and dangerous.

(*b*) *Encouraging helpful and productive activities.* — American government gives a good deal of attention to the encouragement of helpful and productive activities. The Department of Agriculture carries on a wide variety of investigations and issues a number of publications designed to aid the farmer in solving his problems. Several of the bureaus and divisions within the Department of the Interior perform valuable services to industry. For example, the geological survey investigates, classifies, and issues reports upon the mineral resources of the nation. The bureau of mines is concerned with the mining, quarrying, and utilization of ores and other mineral substances. By means of its reclamation service, the Department of the Interior also superintends the survey, construction, and operation of irrigation works in arid sections. The Department of Commerce includes a bureau of fisheries, a bureau of navigation, and a steamboat inspection service. The bureau of standards within the Department of Commerce has the custody of the national standards of weights and measures. An increasingly important function of the Department of Commerce is the investigation and promotion of American trade with foreign countries. Another important Federal department is the Department of Labor, which includes the bureau of labor statistics, the bureau of immigration, and the children's bureau.

These examples will illustrate some of the ways in which American government aids industrial interests.

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[1] See Chapter XXXIV.

255. Private property. — We have had ample occasion to see that most men are self-centered. In even a highly moral society, men will not ordinarily work consistently except in their own behalf, or in behalf of a few people for whom they care intensely. This tendency to be self-centered is the kernel of industrial progress, but it can result in material prosperity only when government suppresses violence and fraud. The lowest savages are undoubtedly self-centered, but so long as they must rely upon brute force to retain their possessions, there is little inducement to acquire wealth. It is only when law suppresses robbery and fraud, and otherwise protects the individual, that the acquisitive instinct will cause him to exert himself in productive ways.

Thus it is law that has allowed the institution of private property to develop. *Private property may be defined as the exclusive right of an individual to control wealth.* The development of the institution of private property means that the group or nation obliges its members in general to recognize and to respect the right of particular individuals to forms of wealth which they legally possess. The institution of private property is one of the most important bases of capitalism. No institution is more fundamental to our industrial life, for it is the prospect of being able to acquire property and to remain in peaceful possession of it, that is our chief spur to economic activity. It is only in countries where individuals are protected in their property rights that we find an active, progressive, and prosperous people.[1]

256. The enforcement of contracts. — Among the members of a modern industrial community, there is a high degree of interdependence, corresponding, in an important sense, to the interdependence between the parts of a machine. As has been pointed out repeatedly, the typical workman is now a specialist, concentrating upon one particular kind of work, and depending upon his fellows to supply him with numerous goods which he does not find it possible or expedient to produce for himself.

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[1] For a discussion of the evolution of private property, see the *Readings*, pages 249–251.

Now such a condition of interdependence could never have arisen were it not for the fact that government fosters the spirit of confidence and dependability among individuals. One way in which government does this is through laws which provide for the enforcement of contracts. *A contract is simply an agreement between two or more persons to do or not to do some particular thing.* A man may agree, or contract, to sell another person a cow, or to build him a house, or to work for him at a particular task and for a specified wage. Contract law generally specifies the forms and conditions under which contracts must be made in order to be valid, the persons qualified to make contracts, and the purposes for which a contract may be made. Individuals may make contracts freely, but once legally made, the law will see that individuals live up to them.

This does not mean that the law has to enforce every contract which is legally made. On the contrary, the average individual fulfills his part of a contract voluntarily.[1] But if there is a contract between, say, two individuals, and one of these refuses to live up to the agreement, the other party can appeal to the law to oblige the delinquent individual to fulfill his part of the contract. This is clearly essential to our material prosperity, for in a specialized and highly interdependent community, individuals must be able to depend upon all those with whom they have business dealings.

257. Patents and copyrights. — We have enacted patent and copyright legislation for the purpose of protecting the rights of such persons as inventors, discoverers, and authors.

The law which at present governs the issue of patents in this country allows the inventor of a useful machine, or other useful contrivance, to enjoy the exclusive right to manufacture and sell his invention for a period of seventeen years. If during that time anyone else manufactures or sells the patented article without the consent of the person holding the patent, the latter may appeal to the courts for protection and damages.

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[1] For a discussion of the importance of dependability in industrial life, see the *Readings*, pages 256–258.

A copyright resembles a patent, except that instead of referring to a mechanical device or manufacturing process, a copyright refers to books, magazines, songs, and similar productions. Whoever holds the copyright enjoys the exclusive right to manufacture and sell the copyrighted production for twenty-eight years, though either the person holding the copyright or his heirs may secure an extension of twenty-eight years more. The most commonly copyrighted productions are books.

TRADEMARK

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Although they amount to a temporary monopoly, patents and copyrights may be defended on two grounds. In the first place, the individual is entitled to some reward if he has the ability, and has also expended the time and energy, to produce some useful thing. This reward he reaps in the form of a monopoly of the production and sale of his work. If the production were not made his monopoly, other persons could easily copy and sell it as soon as he announces the results of his labors. In the second place, the period of this monopoly is limited. After the specified number of years has elapsed, anyone may reproduce, use, or sell the product which had been made the subject of a patent or copyright. It is thus only temporarily that the manufacture and sale of the product are restricted to the inventor, discoverer, or author.[1]

258. Personal liberty. — A great cornerstone of a highly industrial community, such as the United States, is a large degree of personal liberty. As we have seen, American government aims to suppress activities which are harmful or dangerous. With this exception, however, our citizens are comparatively free to do as they like, so far as legal restraints are concerned. The individual is free to go about in search of work, free to seek a better job, free to enter a profession, free to accept or reject work which has been offered him. He may abandon his work when he chooses, and remain idle as long as he chooses, or is able. Every normal adult has a right to acquire property and to dispose of it either by sale or by inheritance. The individual is free to establish any enterprise which is lawful. To a large extent the employer is free to hire or discharge men as he sees fit, free to expand or contract his business, free to withdraw from business altogether. In practically every case, the adult individual is free, so far as legal restrictions are concerned, to use his money as he likes. Whether it is hoarded, invested, or wasted, is largely a matter for him to determine. In short, the normal adult is repressed by no paternalistic government, embarrassed by no feudal system. He is part and parcel of the competitive system, guiding his own actions and accepting the responsibility for them.

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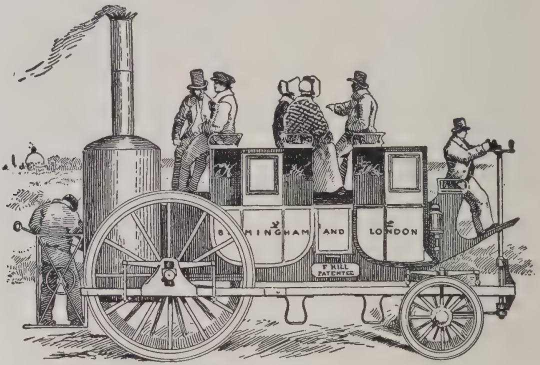
[1] For a fuller description of our patent system, see the *Readings*, pages 251–253.

259. Competition. — Early in the text we saw that man has wants, and that instinctively he struggles to satisfy those wants. We saw, too, that many of the goods which have the capacity to satisfy human wants are scarce. As a result, men must struggle or compete with one another in order to get goods to satisfy their wants.

In the economic sense, competition implies rivalry in satisfying a want, that rivalry being engaged in for the sake of private gain. Laborers compete with each other when each seeks to secure a given job. Manufacturers compete with each other when each seeks to sell his goods to the same consumer or group of consumers. Retail stores compete with each other when they advertise *their* goods as " the best." In all of these cases, individuals or groups of individuals engage in rivalry in order to satisfy the wants of some one. They are willing to engage in such rivalry because of the reward which the consumer or purchaser will pay the successful competitor.

260. Price is an automatic traffic signal for producers. — In some of our large cities street traffic is controlled and regulated by automatic signals. Price acts as such a signal for producers.

Every individual who produces goods for sale is interested primarily in his own private profit. Price movements are one clear proof of whether the producer is losing or gaining, and accordingly production regulates itself somewhat by price movements. If consumers want relatively few automobiles, their demand for automobiles will slacken, the price will fall, and automobile manufacturers will probably decrease their output because "there is little money in automobiles." If there is a shortage of housemaids in a community, this shortage will express itself in a strong demand for housemaids, this increased demand will express itself in the offer of high wages, and girls formerly engaged at some other occupation will be tempted to hire out as housemaids. If the price of potatoes sinks lower and lower each year, farmers will grow fewer and fewer potatoes, whereas if the price of potatoes goes steadily up, farmers will tend to raise more and more potatoes. Thus just as an automatic signal tells traffic when to "go" and when to "stop," price movements warn producers when to slacken and when to redouble their efforts.



A Precursor of the Automobile in Use about 1840

The tremendous improvement of this means of conveyance since that date is due chiefly to competition among inventors and manufacturers.

261. Effect of competition upon consumption. — Competition is constantly persuading the individual to increase or to vary his consumption of goods. Competition between producers tends to increase the supply of goods and to lower their price. A lower price tempts the individual to increase his consumption. Moreover, competition is constantly seeking *new* ways in which to satisfy us. When consumers become indifferent, or weary of one type of good, enterprisers bring to market new styles of clothing, breakfast foods, typewriters, automobiles, or hair ribbons, in order to please and satisfy us. Shrewd enterprisers, intent upon private profit, study the products of other lands and other peoples, and wherever possible adapt these to American conditions. Without moving from his native town, the American citizen can thus choose of the offerings of the world. The banana, the Persian rug, the Chinese lantern, the German hand-carved toy, the ukulele, these and a thousand other goods are offered to satisfy our wants, and by individuals intent primarily upon making money for themselves.

262. Competition tends to establish a harmony of interests. — Perfect competition has a tendency to harmonize the interests of consumers and producers. Under a competitive system, the price of goods cannot rise too high, or consumers will either use substitutes, or will buy the goods of new producers offering them at a lower price. If, on the other hand, prices drop so low that producers make little or no profit, these enterprisers will withdraw from business. In such a case, the price of the goods will have to rise high enough to tempt these producers back into business, that is, if consumers really want their goods. As we have seen, price tends to be established at a point at which demand and supply are in equilibrium, and at which both buyers and sellers secure as great a satisfaction as is possible under the circumstances. Competition tends to harmonize the interests of consumers and producers to the greatest extent possible.

263. Benefits of the capitalistic or competitive system. — The material prosperity of the modern world has been attained under the industrial system which we have been describing and analyzing. This system was not invented, but has developed and spread from small beginnings, because the experience of centuries has proved it to be the best known system which is applicable to industry. The starting point of all material prosperity has been the gradual development of government which suppresses violence and fraud, which enforces contracts, and which makes possible the rise of the institution of private property. The inception of the Industrial Revolution, and its spread beyond England to Europe, America, and, later, to Asia, were possible only because these bases of capitalism were already laid. To a large extent, the steam engine, the railroad, the steamship, the electric light, and countless other inventions which have helped to revolutionize the world we live in, may be traced to individual freedom and the protection of property rights. In so far as science, art, and literature depend, to a considerable degree, upon material prosperity, we may go so far as to say that capitalism is one of the most important single factors in modern civilization.

264. Conclusion. — In this and the preceding chapters, we have said much about the mechanism of the capitalistic system. We have not claimed that this system is perfect. We have been explaining the nature of capitalism, rather than attempting to justify it. Great and serious charges have been brought against the industrial mechanism which exists in this and other modern industrial countries. Many of these charges represent drawbacks to an otherwise enviable system, and they are proof that we cannot complacently accept the benefits of capitalism. Since an examination of these charges may indicate the weaknesses of the capitalistic system, and point the way to the elimination of those weaknesses, it is to our interest to plunge beyond a description and analysis of industry. In the next chapter, therefore, we shall present the chief charges against capitalism.

Questions on the Text

1. What is the purpose of this chapter?
2. Why may we say that there is a capitalistic system?
3. From the economic standpoint, what are the two chief functions of government?
4. Illustrate the manner in which government may discourage harmful and destructive activities.
5. What are some of the ways in which our government encourages helpful and productive activities?
6. What is meant by "private property"?
7. What is the relation of private property to the development of law?
8. What is a contract?
9. What is the importance of laws providing for the enforcement of contracts?
10. What is the purpose of our patent law?
11. What is the nature of a copyright?
12. Upon what two grounds may patents and copyrights be defended?
13. Show that a large degree of personal liberty is characteristic of American industry.
14. Explain the nature of competition.
15. Explain the statement that "price is an automatic traffic signal for producers."
16. Summarize the relation of the capitalistic system to civilization.
17. What is the importance of inquiring into the charges which have been brought against capitalism?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XVIII.)

1. Describe the beginnings of private property. (page 249.)
2. What was probably the first property right? (page 250.)
3. When may we say that the right of property is complete? (page 251.)
4. When was our Patent Office established? (page 252.)
5. Describe the process by means of which a patent may be obtained. (pages 252–253.)
6. Explain the statement that "competition is the law of life." (page 254.)
7. Explain the statement that "he conquers who does best for society." (page 255.)
8. Describe some of the ways in which retailers may attempt to evade their commercial obligations. (pages 256–257.)

9. How might an association of sellers attempt to check such practices? (page 258.)
10. What is meant by the term "business cycle"? (page 258.)
11. What are the chief symptoms of the business cycle? (pages 258–259.)
12. Explain the great economic cause of the industrial crisis. (pages 259–260.)
13. Describe the influence of the psychological factor in the crisis. (page 260.)
14. Name three of the social effects of the Industrial Revolution. (pages 260–261.)
15. Describe clearly the effect of the factory system upon the relations existing between employers and employees. (pages 261–262.)

Topics for Investigation and Report

1. Penalties inflicted by the laws of your state for robbery, theft, embezzlement, forgery and other crimes against property.
2. The right of eminent domain.
3. Theories of the origin of private property.
4. Forms of contracts.
5. Interview a business man on the value of contracts in his business.
6. Suppose you are a florist and that you have ordered a large quantity of flowers from a greenhouse keeper for your Decoration Day trade. Assume that you could not sell the flowers at a profit if they arrived later than Decoration Day. Assume, also, that you have reason to believe that the greenhouse keeper will not be prompt in delivering the flowers ordered. Draw up a contract (to be signed by him), which will protect you against his tendency to carelessness.
7. Procedure involved in securing a patent or copyright.
8. Types of competition.
9. Select for study an isolated rural district, a small town, or a section of a suburb in which the community secures its supply of a given article from a single shop or store. Compare the price of the commodity, and its quality, with the price and quality of a similar commodity in stores located in communities served by several competing stores. What do you conclude as to the importance of competition?
10. The impersonality of modern life.
11. Types of business in your industry in which competition is very keen. Businesses in your community in which competition is weak or absent. How do you account for the difference?
12. Effect of recent price changes upon production in your community.

13. Interview a local business man upon the difficulty of keeping secret new and better ways of doing things which he himself has originated.
14. The benefits of capitalism.
15. The evils of capitalism.

Questions for Classroom Discussion

1. Suppose an unscrupulous person fraudulently secured possession of property belonging to you. What steps would you take to secure justice?
2. Do you know of any drawbacks to the institution of private property?
3. What is the relation of capitalistic production to a large labor supply?
4. What is " fair competition "?
5. Competition is sometimes condemned because it crushes out the many and gives victory to the few. Discuss.
6. Persons under twenty-one years are generally restricted in the making of contracts. Why?
7. Discuss the statement that " the trouble with the competitive system is that it gives people what they want."
8. How long should patents and copyrights run?
9. Discuss the restriction of the liberty of the individual in industry.
10. Discuss the statement that " he conquers who does best for society."
11. Discuss the statement that " competition is the safeguard of society."
12. Discuss the statement that " competition is the life of trade."
13. How would you test a proposed new enterprise in order to discover its probable chances for success?
14. Adam Smith, the " father of modern economics," said that we satisfy most of our wants, not by appealing to the sympathies of our fellow men, but by addressing ourselves to their self-interest. Discuss.
15. What evils of capitalism have been called to your attention by the study of this and the preceding chapters?

PART III

THE REFORM OF AMERICAN INDUSTRY

CHAPTER XIX

THE CHARGES AGAINST CAPITALISM

265. The charges against capitalism are of two kinds. — The purpose of this chapter is to outline, in definite and concrete form, the more important charges which have been brought against the capitalistic system. Capitalism is so complex and so many-sided that at first sight it might appear impossible to arrange these charges in any logical or intelligible order. A little thought will show, however, that the complaints against capitalism are divisible into two groups. A first group of charges has to do with the wastes of capitalism; a second group is concerned with inequalities under capitalism.

a. The wastes of capitalism

266. The waste of natural resources. — A serious charge against our present industrial system is that it has permitted a criminal and extensive waste of our natural resources. The problem of conserving our natural resources is reserved for later treatment,[1] but here we may note that in the past, at least, we have used wastefully every form of natural wealth which we possess. Forests and water power, minerals and land fertility, enormous amounts of all of these types of natural wealth have been used lavishly and carelessly.

267. The waste of productive powers. — The critics of capitalism declare that most enterprisers are dominated by the desire for private gain, and that consequently they will tend to produce whatever people will pay for.[1] If people would offer to buy only those goods which would benefit them to the highest degree, no great harm would result from this freedom of production. Unfortunately, however, we often want things which either harm us, or which do us little or no good. Again, if the law prohibited the production of all harmful and useless goods, the desire for private gain would not result in great harm. But although the law forbids the production of such obviously dangerous goods as whiskey and opium, there are innumerable goods of doubtful worth, the production of which is not prohibited by our or any other government. Let us inquire into this.

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[1] Chapter XXVII.

(*a*) *The production of harmful goods.* — Sometimes consumers buy harmful goods under a mistaken notion of their true nature. Thus foods which are partly spoiled, or which have been artificially colored or otherwise adulterated, may be purchased on the assumption that they are wholesome. Sometimes people acquire a liking for certain goods, and continue to consume them in spite of the fact that such goods are harmful. Tobacco, liquor, and some types of candy and "soft drinks" are examples. In a great many cases, harmful goods are consumed because their effects upon the consumer are not easily traceable, and because the misgivings of the purchaser are overcome by the persistent advertising of these goods as being pleasant and desirable. Certain kinds of patent medicines are examples of this class of goods.

(*b*) *The production of luxuries.* — To a considerable extent the production of luxuries must be considered as a wasteful use of productive powers. The most flagrant examples of this evil are the extravagances of the rich, and particularly of the small group of idle rich. Riches alone may encourage extravagance, and when idleness is coupled with riches, the constant search for entertainment generally leads to wasteful habits. The staging of fancy dress balls, and the equipment and maintenance of luxurious yachts, illustrate the uneconomical use of wealth. The maintenance of numerous town and country houses, the employment of unnecessary servants, the insistence upon numerous automobiles, and the ever-present fear of appearing in public in any but a semi-regal state, all these factors lead to a waste of wealth. In such cases, wealth becomes a fantastic plaything, a means of rivalling one's neighbors, a weapon to further social ambition.

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[1] For a further discussion of this point, see the *Readings*, pages 266–268.

268. Wastes in manufacturing. — The wastes of manufacturing are typical of another series of charges against capitalism. Let us consider the wastes of manufacturing from two angles.

(*a*) *Duplication of plants may mean uneconomical production.* — Under our present industrial system, enterprisers are practically free to produce whatever they like. High profits in, say, the automobile business, will tempt more and more enterprisers into the field. All of these producers may make enough profit to keep them in the business, and yet the market for automobiles could perhaps be supplied by half or three-fourths as many producers as are actually at work. This unnecessary duplication of plants is said to be a relatively uneconomical use of the factors of production. In many cases, it is charged, the persistence of numerous competing concerns prevents industry from taking the fullest advantage of the economies of large-scale production.

(*b*) *The constant danger of over-production.* — Under capitalism there is a constant danger of over-production. Over-production means that more of a good is produced that can be sold at a profit, and not that more is produced than people can use.

To continue the example given above, suppose that numerous enterprisers take up the manufacture of automobiles. Two dangers confront each of these enterprisers. In the first place, the consumers of automobiles are affected by so many conditions that it is difficult for producers to tell just what will be the future demand. Nevertheless, each manufacturer must proceed as though he did know! In the second place, each producer is intent primarily upon selling his own product. As a result, he often tends to produce on the supposition that he will gain the trade of a larger proportion of automobile users than will actually buy of him. Producers take note of their competitors, of course, but eagerness to sell and each manufacturer's self-confidence often combine to make producers turn out cars in excess of the actual demand.

As the result of the production of automobiles by a number of competing manufacturers, there is constant danger of a glut in the market for automobiles. The effects of such a glut, or over-supply, may be serious. Producers may be obliged to lower the price in order to dispose of their cars. The price may fall and fall, until at length it may go so low that it does not cover the cost of production. Thus over-production may oblige producers to halt work, to discharge workmen, and to stop purchasing their former quota of raw materials.

If such a condition appears in a number of staple industries at approximately the same time, industry may suffer an extended depression. Such periods of depression are of rather frequent occurrence in all capitalistic countries, and are called *crises*. During a crisis, the whole productive mechanism is stalled, the production of wealth slackens, large numbers of laborers are thrown out of work, and hardship falls upon even those classes which are not directly involved in industrial pursuits. A crisis is a national calamity.

269. Wastes in marketing. — Numerous complaints have been brought against our marketing system. A proper consideration of these charges would require a volume, and accordingly, we shall have to content ourselves with noticing a few of the more important of them.

(*a*) *The waste of competitive advertising.* — The function of advertising is to inform prospective buyers of the location, nature, and price of goods. With the growth of business, the growing intensity of competition, and the improvement of transportation and communication, advertising has become a gigantic business. Think of the daily cost of preparing and sending through the mails thousands of tons of pamphlets, calendars, circulars, and other enticements to buy. Consider the fabulous sums spent upon newspaper and magazine advertising of rival products, and upon bill-board space and huge electrical displays. Think of the increasing number of advertising specialists who give their time and energy to planning new schemes whereby some individuals may win customers away from other individuals.

All this advertising may be defended on the ground that it informs prospective buyers of the location, nature, and price of goods. But this defense is unsound. The line between economical and wasteful advertising is a fine one, but common sense tells us that somewhere the line *does* exist. A great deal of advertising is certainly a sheer waste from the social point of view, a mere pulling of consumers here and there, a robbing of Peter to pay Paul, without any resulting gain to the community. And much of the enormous cost of advertising is ultimately paid by the consuming public, in the form of higher prices than would otherwise be paid for goods. Enterprisers must count advertising expense as part of their cost of production, and the price they charge the public must ultimately be higher than it would be if this item in the cost of production did not exist.

(*b*) *Waste in marketing food.* — The handling of food products illustrates a type of marketing waste which lies very near the heart of the consumer. Capitalism is characterized by an excessive number of commission agents, jobbers, retail dealers, and other marketing agents. So many of these people take toll of agricultural produce, for example, that its price doubles or trebles between the farm and the kitchen of the city housewife. Four or five milkmen daily visit an apartment house, at which each milkman delivers a few quarts of milk, although it would be possible for a single milkman to serve the whole apartment house. In a small town which could be served by one or two butcher shops, there may be four or five meat dealers. In a suburb which could be served by two or three grocers, there may be a dozen such retailers. The employment of land, labor, and capital in uneconomical marketing costs us many millions of dollars a year. And, again, it is the consuming public which ultimately pays for all this in the form of higher food prices than would otherwise be necessary.

b. Inequalities under capitalism

270. The charge of inequality has two aspects. — Let us turn now to the second group of charges against capitalism. These have to do with inequalities under capitalism. The charge that capitalism means inequality has two aspects. In the first place, it is claimed that capitalism has lavished wealth and prosperity upon a few; in the second place, it is claimed that capitalism has created and perpetuated a large class of poor. Let us inquire into this.

271. The evil of great wealth. — The opponents of our present industrial system say that capitalism permits and encourages the accumulation of great wealth. It is admitted by some critics that a share of our wealthy citizens have acquired riches by fair and lawful means. By other opponents of capitalism, it is charged that great wealth is practically always the result of fraud, monopoly, or some other form of dishonesty. It is claimed, however, that whether fairly or unfairly acquired, great wealth works evil in two ways. On the one hand, great wealth encourages idleness and luxurious living on the part of its possessors. On the other hand, it is socially undesirable for a few individuals to possess great wealth when so many other people lack the necessities of life.

272. The evil of widespread poverty. — Let us glance for a moment at the other side of the picture. While a few persons have so much wealth that it is a burden even to themselves, large numbers of persons are poor. In this, as in other modern industrial countries, the distribution of income is in a form roughly pyramidal.[1] This means that there are at the top a few individuals with large incomes, while as we move downward there are more and more people with smaller and smaller incomes. In brief, a few enjoy riches, more enjoy moderate incomes, but the masses are poor.

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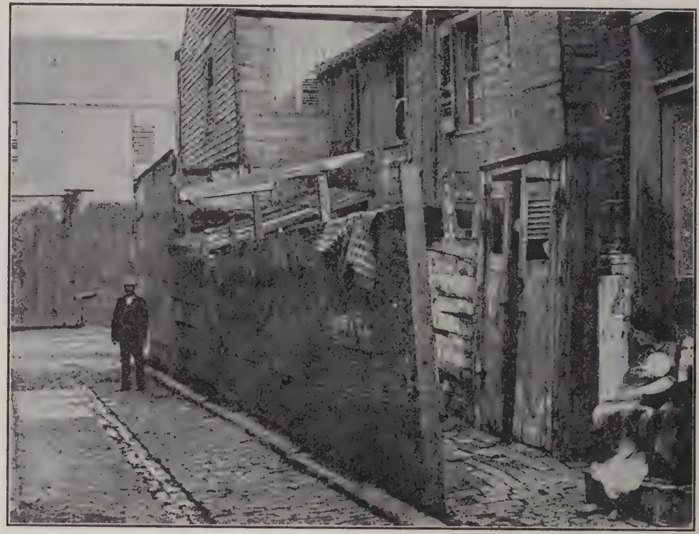
[1] For a fuller discussion of the inequality of wealth, see the *Readings*, pages 273–275.

273. The nature of "wage slavery." — Much of the work of modern industry is performed by laborers who are hired by employers, and who are rewarded in the form of wages. In order to secure the fullest advantages of the division of labor, and of the use of power machinery, enterprisers have been obliged to organize industry on a semi-military basis. Thus laborers are required to appear for work at a designated hour, to work for a certain number of hours without ceasing — in short, to go and to come, not as their own pleasure dictates, but as the employer desires. This system of handling laborers is called the wages system, and is known among some critics of capitalism as "wage slavery."



Homes of the Poor

Facing on an alley in a great industrial city.

The wages system is considered to be a form of slavery chiefly because it holds the laborer in a firm grip, and because it prevents him from rising in the industrial scale. Industry has become a gigantic machine, moving with power and with dispatch, but only because the activities of its numerous parts have been reduced to routine. The workman has become a cog in this machine, a human tool, retained to serve a specialized need, and not wanted in any other capacity. The average factory hand cannot become an independent employer, first because he has little chance to learn the various aspects of the business, and second because he is unable to amass the necessary capital. For the great masses of workingmen there is no prospect beyond the routine of the work-bench or machine.

274. The deadening touch of the machine. — The critics of capitalism say that the factory system not only holds the laborer in a species of slavery, but that it kills in him those qualities which in a more friendly environment might come to some account. We point to the machine as proof of our skill in harnessing natural power to do our work for us. But the machine must be directed by human beings, must be tended, watched, helped by human fingers. Now this connection of man and machine works numerous evils. The machine has no heart, no feelings, no sense of compassion for its feeble attendant. It lays a destructive weight upon human abilities and aspirations. Hour after hour at a machine, day in and day out at a machine, weeks and months and years tending a whirling mechanism, all this deadens the worker, dulls him, suppresses what originality and versatility were native to him, and reduces him, at length, almost to the level of the machine itself.

The visitor to a factory, or the student who only *reads* the story of the Industrial Revolution, finds it easy to enthuse over the happy results of machinery. But the millions of men, women, and child employees see, not the advantages of machinery to humanity in general, but its effects upon their own lives. To them the machine may easily become a monster, and an enemy to their development. The machine may be the source of their living, but it may be the source, too, of fatigue, habitual stupidity, and dull despair.

275. The danger of unemployment. — Sometimes men are out of work because they are lazy, or stupid, or vicious. But other of the causes of unemployment lie in the very nature of capitalistic industry. When a crisis or a strike throws men out of work, unemployment must be charged against our industrial order, rather than against the individual laborer.

The danger of unemployment is increased by the minute division of labor. The numerous parts of the industrial mechanism are so interdependent that an accident to one may render the others useless. A strike may paralyze a whole series of industries. A shortage of leather, the breakdown of the transportation system carrying supplies to the factory, these and many other developments may throw out of work a man who makes his living entirely by stitching soles at a machine.

And once thrown out of work there is often little chance of getting other employment. The very forces which threw him out of work in one factory may likewise render it impossible for him to find work in *similar* establishments. If, for example, a shoe stitcher is thrown out of work because of the shortage of leather, it is likely that *all* of the shoe factories in the locality are suffering from lack of leather, and are consequently laying off workmen. Nor is it always possible for him to find another *type* of work. A shoe stitcher is only a shoe stitcher, and although his skill ordinarily brings him high wages and the envy of humbler workmen, unemployment may reduce him to great straits. Either because he knows no other trade, or because he is too proud to accept humbler work, he may remain unemployed. If his unemployment is long-continued, his very skill may prove his downfall. Like the stag whose chief pride was his antlers, but who was brought to death by those antlers, the skilled workman may find his very excellence the cause of disaster.

276. The specter of social unrest. — Such evils as we have been discussing often arouse the interest and sympathy of those who have been unaware of them until told of their existence.

But among those classes who know these evils, not by hearsay, but from experience, such conditions often arouse a sullen hatred against the individuals who are imagined to be responsible for all this. The dislocations of industry, with its crises, its strikes, its seasonal fluctuations, its price changes which the laborer does not understand, but which he *feels* when he comes to buy bread and potatoes and meat, all these factors aggravate the resentment of the laboring classes.

Suffering from the bruises of capitalism, the workman often murmurs against his lot in life. In many cases the complaints of the laborer are instigated and encouraged by the cunning lies and half-truths of radical agitators who are bent upon the destruction of capitalism. Although the radical agitator is often very poorly qualified to champion the cause of the working classes, he often has the advantage of being the first person to offer sympathy and aid to the discontented laborer. The radical agitator readily realizes what often takes long experience to drive home to the more conservative elements of the population, namely, that the unsolved problems of capitalism may easily lead to restlessness and bitter resentment among our wage-earners. For among those whose lives are the pawns of an industrial order which so often appears to work blindly and cruelly, industrial reform is a matter of profound import. Why poverty? they ask. Why industrial accidents? Why luxuries to the few and poverty for the many? Why? Why? Why?

277. Summary and forecast. — We have indicated enough of the charges against capitalism to show the nature of the problem confronting us. These charges are numerous. They are grave. They contain both truth and error. The critics of capitalism generally admit the benefits of the present industrial system, but they maintain that it must either be greatly improved, or be superseded by a better system. And though this phase of economics is generally neglected by students of the subject, there is no more vital problem than that of remedying or perfecting the industrial mechanism by means of which we get our living. It is because of this fact that the earnest attention of the student is directed to the following chapters, in which are discussed various programs of industrial reform.

Questions on the Text

1. Into what two groups may we divide the charges against capitalism?
2. What can be said as to the waste of natural resources in this country?
3. What are the fundamental reasons for the waste of productive powers?
4. How do you account for the production and consumption of harmful goods?
5. Illustrate the waste of productive powers with reference to the production of luxuries.
6. Explain the statement that "duplication of plants may mean uneconomical production."
7. Explain the way in which a crisis may come about.
8. What are some of the evil effects of a crisis?
9. What is the function of advertising?
10. Explain carefully the nature of waste in competitive advertising.
11. Illustrate the waste in food marketing.
12. Explain the statement that "the charge of inequality has two aspects."
13. Why is great wealth considered an evil?
14. Explain the statement that "the distribution of income is in a form roughly pyramidal."
15. What is meant by "wage slavery"?
16. In what ways may the tending of machinery deaden the workman?
17. How is the danger of unemployment increased by the division of labor?
18. What is the importance of the problem of industrial reform?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XIX.)

1. Explain the statement that "modern industry is essentially speculative in character." (pages 264–265.)
2. What is the effect of the growing complexity of capitalism? (pages 265–266.)
3. What, according to John Spargo, is the central sun around which the industrial system revolves? (page 266.)
4. Describe the extent of the profit-making evil. (page 267.)
5. Describe the widening circle of the meat packers' activities. (page 269.)
6. What is the meaning of the term "The Big Five"? (page 269.)

7. Describe the entry of the packers into the wholesale grocery, provision, and produce trade. (pages 269–270.)
8. Why did the Federal Trade Commission find it difficult to ascertain the extent of packer control? (page 270.)
9. Enumerate some of the charges brought against the packers. (pages 270–271.)
10. Summarize the conditions which were revealed by the Pittsburgh Survey. (pages 271–272.)
11. What does Professor Taussig mean by saying that the distribution of wealth has a form like that of an inverted peg top? (pages 273–274.)
12. What are the two causes of inequality of wealth? (page 274.)
13. What is the relation of inequality to inheritance? (pages 274–275.)
14. What type of reformer has drawn up the most comprehensive attack upon capitalism? (page 275.)
15. What evils, according to the socialist, persist despite remedial legislation? (page 277.)

Topics for Investigation and Report

1. The waste of natural resources in your section of the country.
2. The consumption of harmful goods in your community.
3. Pure food laws in your state.
4. The extent of luxurious consumption in your community.
5. The attention given in newspapers to costume balls, elaborate weddings, and luxurious house parties.
6. The study of some one important crisis in American history.
7. Interview a manufacturer on the dangers of over-production.
8. Make a study of bill-board advertising in your community. Write to a bill-board advertising company for rates.
9. Make a study of magazine advertising, writing to the advertising manager of one or more magazines for rates.
10. Examples of the wasteful marketing of food in your section.
11. The distribution of wealth in your community.
12. Visit a near-by shop, mill, or factory, and study the effects of the wages system upon the workers.
13. The relation of fashion to unemployment.
14. Make a list of social problems which may grow out of a bad economic situation.
15. Social unrest in the United States in the period immediately following the Great War.

Questions for Classroom Discussion

1. Should we allow enterprisers to produce what they like, and attempt to prevent the consumption of harmful goods by educating people to an appreciation of the results?
2. What do you think of the business man whose slogan in regard to customers is, " Give them what they want, or they'll go some place else "?
3. What is the effect upon the poor of detailed accounts in the newspapers of fancy balls and other luxurious entertainments?
4. How can we discourage luxurious consumption?
5. To what extent do consumers buy such goods as candy and food stuffs for the actual quality of the goods, and to what extent are they influenced by the " brand," and by the manner in which the product is put up for sale?
6. How can we distinguish between advertising which is socially desirable and advertising which is socially undesirable?
7. In many cases what appear to be competing products are really the same thing, and are put out by the same firm. Why do you suppose a concern will pretend to the public that these are different products, and spend large sums in advertising them under different names?
8. The detection of artificial coloring in foods.
9. Can you tell cotton from wool, silk from imitation silk, and leather from leather imitations?
10. Is the term " wage slavery " justified?
11. In what type of industry has the average laborer the best chance to rise or advance?
12. Discuss the statement that " every man has a right to a job."
13. What is the relation of price changes to social unrest?
14. Discuss the reasons for social unrest during and immediately after the Great War.
15. Assuming that one of the great needs of the laboring classes is an understanding of economic principles, what are we going to do about it?

CHAPTER XX

PLANS TO IMPROVE THE WAGES SYSTEM

278. A defect in the wages system. — We shall begin our survey of programs designed to reform American industry with a brief consideration of some of the plans which aim at the improvement of the wages system.

One great defect of the wages system is that it does not fully enlist the good will and coöperation of the laborers. There are three reasons for this. In the first place, laborers are often irritated and disheartened by the belief that they are receiving a relatively small share of the industrial income. In the second place, the wages system often means long, unvaried work, with frequent exposure to accident, disease, and unemployment. In the third place, it often happens that laborers are dissatisfied because employers treat them as mere cogs in a machine, without proper regard for their human instincts and aspirations.

279. The importance of correcting this defect. — There are several reasons why the wages system ought to be made as attractive as possible to the laborers.

Firstly, from the standpoint of the *employer*, the laborers' dissatisfaction with the wages system means a relative inefficiency and consequently a relatively high cost of production.

Second, from the standpoint of the *laborer*, a relative inefficiency means lower wages than might otherwise be secured, while antagonism toward the wages system increases the dangers of unemployment through strikes and other forms of industrial warfare.

Third, from the standpoint of the *public*, the laborers' dissatisfaction with the wages system means the uneconomical use of productive power, its waste through industrial warfare, and the danger of revolution should the masses of our laboring population fall under the influence of radical agitators.

In the effort to make the wages system more attractive to the laborer a number of plans have been developed, a few of the more typical of which we may now consider.

a. Welfare work[1]

280. The nature of welfare work. — The term "welfare work" has been applied to all those services which an employer may render to his employees, over and above the payment of wages. Welfare work is a means by which an employer may benefit the whole body of laborers employed by him. Welfare work includes activities both within the work place, and outside of the place of employment. Within the work place, it may include rest rooms, comfortable lunch rooms, lunches at cost, and an emergency hospital for injured employees. Many mills and factories also provide for their employees such conveniences

An Example of Welfare Work

Dwellings erected by the Pressed Steel Car Company, of Pittsburgh, for its employees.

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[1] In some quarters what was formerly known as "welfare work" is now known as "employees' service work." It is not yet clear, however, that this newer term will generally supersede the term "welfare work."

as libraries, playgrounds, club rooms, dancing space, bowling alleys, and swimming pools. Sometimes employers extend welfare work to include the construction of "model" workingmen's houses, which they rent or sell to employees on favorable terms.[1]

281. The significance of welfare work. — All of these measures are helpful in rendering the life of the laborer more pleasant and often more efficient. But although welfare work is admittedly a desirable development, it only lessens the force of existing evils, and does not affect the fundamental nature of the workman's lot. In other words, welfare work is a surface reform, rather than a deep-lying reform. Many trade unions violently oppose welfare work, on the ground that employers use it to distract workmen from the fact that they are getting very low wages. Trade unions also claim that welfare work is often adopted by employers who wish to use it to wean laborers away from the union. And it must be admitted that while many employers have adopted welfare work out of a genuine regard for the interests of their employees, many other employers have had purely selfish motives in mind in developing welfare work in their establishments.

b. Piece work

282. The nature of piece work. — The common method of rewarding workmen is to pay them for the amount of time during which they work. For example, a laborer may be paid $3.00 a day, or $35.00 a week, or $100 a month. The term "piece work" means that laborers are paid, not on the basis of time, but according to the number of units of product actually turned out. For example, a man packing sardines into cans is paid, not a given amount per day regardless of the amount of work actually done, but so much per can packed. In farming, a corn husker may be paid, not so much per day, but a definite rate per bushel of corn husked. In working upon a steel building, a riveter may receive so much per rivet fastened. Bricklayers may be rewarded on the basis of the actual number of bricks laid. These examples will illustrate the nature of piece work.

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[1] For a detailed example of welfare work, see the *Readings*, pages 279--281.

283. Advantages of the piece work system. — There is much to be said in favor of piece wages, as opposed to time wages. Since the piece work system rewards workmen in proportion as they are efficient, this plan brings an element of justice into industry. A stupid or lazy workman will receive low wages because he does relatively little work, while rapid, skilful workmen are paid high wages because they turn out a great deal of product. Where the nature of the enterprise is such that the product of each workman can be measured separately, the employer often prefers piece wages to time wages. The reason for this preference is, of course, that he pays out wages in proportion as work is actually done. The better types of workmen often approve the system, because it rewards them in direct proportion as they exert themselves.

284. Limits of the piece work system. — Despite these advantages, however, the system of piece wages is limited in scope.

In the first place, it can be employed only where the product is uniform, and where each man's product can be measured separately and fairly. A little thought will show that this system could not well be applied to the payment of bookkeepers, carpenters, plumbers, street car motormen, locomotive firemen, and other groups.

In the second place, many employers disapprove of the piece work system because, they claim, it encourages workmen to become so intent upon the *amount* produced as to neglect the *quality* of the product.

In the third place, the piece work system often leads to "driving," that is to say, the employer sets the rate per unit of product so low that the workmen must strain in order to earn a decent wage. Later, when through great effort and practice the workmen have become skilful enough to earn good wages, the employer may decrease the price which he pays per unit of product. Then redoubled efforts are necessary in order that the workmen may again receive good wages.[1]

c. *Scientific management*

285. The principle underlying scientific management. — The term "scientific management" has been applied to a comprehensive plan to reorganize our traditional methods of directing industrial enterprises. Scientific management assumes that employer, employees, and the community at large, all have a common interest in seeing that business enterprises are conducted as efficiently as possible. If the productivity of industry is increased, there will be more income to be distributed among the individuals who participate in production. This increased income could be distributed fairly, it is claimed, because scientific management could discover precisely the share of this wealth which ought to go to particular individuals. Briefly, then, the principle underlying scientific management is that it can increase production, and that it can also secure a fairer distribution of wealth than now exists.

286. Reorganization of the plant. — Scientific management must be worked out with reference to individual enterprises. In order that the principles of scientific management be applied by an employer, it is first necessary that his entire plant be reorganized. Every process involved in the business is studied carefully and minutely. Tools and machinery are arranged so as to be used with maximum efficiency. Detailed studies are made of laborers at work, with the aim of eliminating all unnecessary movements, and of discovering the most efficient way of doing each kind of work. Experts in scientific management then plan, not only the work of each type of laborer, but also the coördination of the various processes within the enterprise. The aim of this reorganization is to secure the maximum of efficiency with the minimum of effort and cost.

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[1] For a further discussion of the objections to piece work, see the *Readings*, pages 281–283.

287. Scientific management in action. — As the result of these extensive studies and investigations, the plant is then completely reorganized. At this point, scientific management may express itself in various ways. According to one well-known and important plan, a workman who is set at a given task is told that according to scientific principles the "standard" time for the performance of the task is a certain length of time, say, forty minutes. He is then instructed in the scientific method of performing the task. He is also informed that in habitually performing this task he is henceforth to receive, as a minimum of remuneration, a certain time wage, say, $3.00 a day. If he customarily requires more than "standard" time to perform the task, he receives only this minimum day wage. If he accomplishes the task in standard time he receives extra pay in the form of a bonus. If he eventually learns to do the task in less than standard time, he receives not only the minimum day wage and the bonus, but an additional premium as well.

288. Advantages of scientific management. — Scientific management is still so new and little accepted that it is impossible to say just what is going to be its effect upon business management. It is to be noted, however, that *as a matter of theory*, scientific management *ought* to effect a conservative revolution in industry. It is based upon sound economic principles. The employer might gain from it in the form of greater product, decreased labor troubles, and a decreased cost of production. The employee might gain from it in the form of shorter hours, more regular employment, and higher wages. The community at large might gain from it in the form of decreased prices for goods, and in the diminution of industrial warfare.

In some cases, scientific management has actually attained these theoretical advantages.[1]

289. Objections to scientific management. — Three objections to scientific management may be mentioned here.

First, scientific management has not yet been able to win the support of the trade unions, and without the support of organized labor any plan for improving the wages system must remain limited in scope. Workmen often fear that scientific management is only another excuse to allow such "driving" as may exist under the piece work system. Again, scientific management appeals to the *individual*, rather than to workmen as a group. This individual appeal is resented by the unions, because it breaks down the collective or group feeling upon which trade unionism is based.

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[1] For detailed examples, see the *Readings*, page 285.

Second, employers have been very slow to adopt the principles of scientific management. Some employers reject the proposal as "new-fangled," and hence worthless. Others oppose it because a considerable outlay of time and money is necessary in order to install scientific management in a given concern.

Third, scientific management is considered by some authorities to be too ideal ever to prove very helpful. It assumes, on the part of those who dictate the work of the laborer, a perfection of judgment which does not exist. Moreover, scientific management is said to increase the monotony of labor by reducing the activities of the workman to uniform and mechanical movements. It is said that this not only increases the fatigue of the laborer, but increases his resentment at thus being treated as a bit of mechanical apparatus.

d. Profit sharing

290. The nature of profit sharing. — Profit sharing implies a coöperative agreement between employer and employees in a given enterprise. This agreement is to the effect that the workmen are to receive, in addition to their regular wages, a share in the profits which would ordinarily go entirely to the enterpriser. The share of the profits so distributed varies with the establishment, but generally from one quarter to about one half of the net profits are divided among the workmen. In every case the division of profits among the individual laborers is on the basis of the wages received. Thus the higher the regular wage received by a workman, the larger will be his share of the profits. Generally, too, only workmen who are steadily employed are allowed to share in the distribution of profits.[1]

Profits are distributed in various ways. Sometimes they are distributed in the form of a cash bonus; sometimes they are distributed in the form of shares of stock in the enterprise; and sometimes the workmen's share is placed in a provident fund or is deposited in a savings bank for them. This last method is known as the "deferred payment" plan.

291. Advantages of profit sharing. — In some cases profit sharing has helped to decrease the cost of production. Encouraged by the desire to increase the share of the profits going to themselves, workmen have in some cases been more careful in handling materials, and in using delicate tools. Workmen who expect to share in the profits of the establishment may also work with more vigor and interest than previously, and hence help to lower the cost of producing goods.

Again, profit sharing has been known to reduce labor troubles in the enterprise in which it has been adopted. Disliking to lose their share of the profits to be distributed later on, workmen have sometimes worked for the same employer for years, and have become permanently attached to the business. Some profit-sharing employers declare that their custom of distributing a part of the profits of the business among their employees has permanently freed them from the fear of strikes.

Lastly, profit sharing has sometimes encouraged workmen to be thrifty and ambitious. Where workmen are intelligent, it is not uncommon for them to be stimulated to saving and investment by receiving a considerable reward in addition to their regular wages.

292. Trade union opposition to profit sharing. — However, profit sharing is distinctly limited in scope.

One reason for this is that it is often bitterly opposed by the trade unions. The unions fear that profit sharing will make the workmen interested chiefly in the employees of their particular establishment, rather than in the workers in the trade as a whole. Sometimes employers have experimented with profit sharing in the hope that they could wean their workmen away from the influence of the union. Such attempts have encouraged the hostility of organized labor toward profit sharing. The trade union also objects to profit sharing on several other grounds. It is said, for example, that profit sharing is often adopted as an excuse to conceal the fact of low wages, and that in many profit-sharing establishments the regular wage plus the profits distributed are no more, if as much, as the regular wage in competitive enterprises. The union also objects to profit sharing on the ground that it is paternalistic and patronizing, and is, at best, a poor excuse for the higher wages to which the workmen are entitled.

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[1] Profit sharing has never been widespread in this country. See the *Readings*, pages 286–287.

293. The attitude of the employer. — Some employers have adopted profit sharing because of altruism, but the great majority of enterprisers will not experiment with this scheme unless it promises to result in some distinct advantage to themselves. Some employers have adopted profit sharing primarily for the purpose of stimulating their workmen to efficiency. Sometimes the immediate effect of the adoption of the plan has been to make the workmen more interested in their tasks, but after the novelty of the scheme has worn off they have generally fallen back into their former pace. Other employers have hoped that profit sharing would decrease strikes and other labor troubles, and when it has failed to do so, they have lost interest in the plan.

294. The attitude of the laborer. — From the standpoint of the American laborer, profit sharing is subject to several limitations.

In the first place, American workmen are too *mobile* to be greatly interested in profit sharing. The deferred payment method of distribution, for example, implies that workmen will remain with one employer for many years. In Europe workmen often do this, but in this country workmen change jobs often, and hence cannot be strongly attracted to a plan which will not benefit them unless they stay with one employer for a long period.

In the second place, American workmen are less thrifty than are European workmen, and for this reason profit sharing is less popular in this country than in Europe. A European laborer might be encouraged to work for a given employer loyally for many years because of a small sum in excess of his regular wages, and in the hope of a pension at the age of, say, sixty years. The average American workman, however, is little attracted by these considerations.

In the third place, it should be pointed out that often the amount of profits to be distributed among the workmen is influenced more by market fluctuations, and by the bargaining skill of the employer, than by the efforts of individual workmen. What the workmen save by laborious economy may be wiped out by a bad turn in the market, or by careless buying of raw materials by the employer. Where workmen realize this, they tend to lose faith in their ability to influence the share coming to them under the profit-sharing plan.

295. Summary and forecast. — In this chapter we pointed out a great defect of the wages system, namely, that it does not fully enlist the good will and coöperation of the employee. In the effort to overcome this defect a number of plans have been proposed. We considered, briefly, four plans designed to improve or modify the wages system. These were welfare work, piece work, scientific management, and profit sharing. These plans vary widely in their nature and detailed organization, but they are alike in their attempt to make the wages system more attractive to the workman. With respect to all of these it may be said that they work well in many cases, and are of considerable value in decreasing the unattractiveness of the wages system. But, with the possible exception of scientific management, all of these plans are distinctly limited in scope, and certainly none has yet changed the fundamental nature of the wage-earner's lot.

In the next chapter we shall consider several phases of a reform program known as coöperation.

Questions on the Text

1. Name a great defect of the wages system.
2. Give three reasons why this defect should be corrected.
3. What is meant by welfare work? Give some examples of welfare work.
4. What is the significance of welfare work?
5. Explain clearly the nature of " piece work."
6. What are the advantages of the piece work system?
7. What is one objection which employers have to piece work?
8. What is meant by saying that piece work often leads to " driving "?
9. What is the principle underlying scientific management?
10. Explain the steps necessary before scientific management can be introduced into a plant.
11. Discuss the remuneration of the workman under this plan.
12. What are the theoretical advantages of scientific management?
13. What are three objections to scientific management?
14. What is meant by " profit sharing "?
15. What are the advantages of profit sharing?
16. Explain the attitude of the trade union toward profit sharing.
17. Discuss the attitude of the employer toward profit sharing.
18. What limitations are imposed upon profit sharing from the standpoint of the American laborer?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XX.)

1. Discuss welfare work as formerly applied in the establishment of the International Harvester Company. (pages 279–280.)
2. Explain the statement that workmen often object to piece wages because of " the loss of earnings which they incur through inefficiency of management or other losses beyond their control." (page 282.)
3. What can be said as to a substitute for piece work? (page 283).
4. Name some special features of scientific management. (pages 283–284.)
5. Give a few examples of the results which have been secured by means of scientific management. (page 285.)
6. Why have some people concluded that profit sharing is fairly widespread in American industry? (page 286.)
7. How many profit-sharing establishments were in existence in this country in 1916? (page 286.)

8. What types of enterprises were represented in this list? (pages 286–287.)
9. Comment upon the geographical distribution of the plants which were experimenting with profit sharing in 1916. (pages 286–287.)
10. What are the essential principles of the shop committee system? (page 288.)
11. Describe the manner in which the shop committee was installed in a certain large industrial plant. (pages 288–289.)
12. Describe two types of shop committee. (pages 289–290.)
13. What can the employer do to help the laborer satisfy his instinct of workmanship? (page 291.)
14. What use may the employer make of the workman's instinct of loyalty? (pages 291–292.)
15. What part does the instinct of play have in industrial life? (page 292.)

Topics for Investigation and Report

1. Instances of welfare work in your community.
2. Interview an employer of numerous laborers in your community who at present does no welfare work. Attempt to discover why he thinks he would not benefit from engaging in this type of work.
3. Interview an official of a local trade union on the attitude of organized labor toward welfare work.
4. Nature and types of gain sharing.
5. List the industries in your section which might make use of the principle of piece wages.
6. Interview a workingman on the relative desirability of time wages and piece wages.
7. Make a study of the variations in the rate of pay in an enterprise in your community making use of the piece wage principle.
8. Nature of the sliding scale method of payment.
9. Interview an official of a local trade union on the value of the sliding scale.
10. The life and work of Frederick W. Taylor, the originator of the principle of scientific management.
11. Interview a friendly enterpriser in your community upon the practicability of scientific management.
12. Interview a local trade union official on the subject of scientific management.
13. Write to the Bureau of Labor Statistics at your State Capitol, asking for information as to profit-sharing experiments, past or present, in your section. Make a study of one of these experiments.

14. Interview, or write to, an employer, explaining the essence of profit sharing, and asking for his opinion as to its practicability in his business.
15. Reasons for the limitations of profit sharing, in addition to those given in the text.

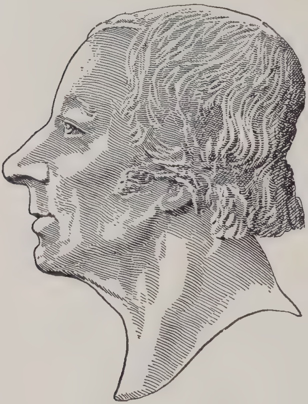
Questions for Classroom Discussion

1. Discuss the statement that "every self-respecting workman ought to scorn welfare work, because it is both paternalistic and patronizing on the part of the employer."
2. Discuss the statement that "if employers want to do something for their workmen, let them raise wages instead of spending money on welfare work."
3. Discuss the statement that "welfare work ought not to extend beyond the provision of decencies and comforts *in the work place.*"
4. How can laborers working under the piece system be protected against "driving"?
5. Discuss the significance of the word "scientific" in the term "scientific management."
6. Do you think that the trade unions are justified in opposing scientific management?
7. What do you think of the future of scientific management in American industry?
8. Why do you suppose that some employers like to advertise the fact that they are sharing profits with their employees?
9. Qualities which an employer requires in order that he may be able to apply the principle of profit sharing successfully.
10. Are the trade unions justified in opposing profit sharing?
11. Should a committee representing the employees in a profit-sharing establishment be permitted to examine the accounts of the employer, in order to see what are his actual profits, and to make sure that he is correctly reporting these profits to the employees?
12. Is altruism in industry increasing?
13. How many of the plans discussed in this chapter appear to you to be important improvements upon the wages system?
14. Can you suggest any plan of your own for improving the wages system?
15. Will the wages system endure, or is it destined to be superseded by some better system?

CHAPTER XXI

COÖPERATION

296. The meaning of coöperation. — Unless otherwise specified, coöperation is assumed to mean simply the working together of individuals for a common purpose. It is in this sense that the word has been used in the foregoing parts of this text.



ROBERT OWEN (1771–1858)

The English social reformer who in 1821 originated the term "coöperation."

In this chapter, however, the term coöperation is used in a different sense, namely, to describe a type of industrial reform. Thus understood, the essence of coöperation is that a group of individuals undertake to perform for themselves those functions which are commonly carried on by some type of business man.[1] The nature and purpose of coöperation may be demonstrated by examining each of the four chief forms which it takes.

a. Consumers' coöperation [2]

297. The meaning of consumers' coöperation. — In this form of coöperation, a number of individuals come together in order to buy commodities more advantageously than would otherwise be possible. Suppose, for example, that a number of workmen whose families habitually use small amounts of flour, sugar, potatoes, dry goods, etc., desire to secure these commodities at prices lower than those charged by the regular retail dealers. Accordingly they contribute their joint savings to a common fund, and form a coöperative society. The coöperators then establish a store, select clerks and store equipment, purchase the desired commodities at wholesale prices, and buy these goods at their own store in small quantities. The store is managed by the coöperators as a body, each coöperator being entitled to one vote, without regard to the number of shares he may hold.

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[1] The aims of coöperation are discussed in detail in the *Readings*, pages 307–309.

[2] Sometimes called distributive coöperation, or coöperation in retail trade.

298. Prices in the coöperative store. — Outwardly the coöperative store is much the same as any other store. In order to prove attractive to its customers, the coöperative store is obliged to keep its stock of goods up-to-date, to use window displays and placards, and otherwise to cater to customers. Generally, too, the coöperative store charges customers the same prices as they would pay at a privately owned store. In a large proportion of coöperative stores, it is a strict rule that all goods shall be paid for in cash at the time of their purchase by the customer. In most cases the coöperative store will sell goods both to members of the coöperative society, and to persons who do not belong to the society. Some stores permit all customers to share in the profits earned by the store, but in most cases only members of the society are permitted to share in the distribution of profits.

299. The distribution of profits. — The profits of the coöperative store are based upon the difference between the relatively low wholesale price at which it buys goods, and the higher retail price which it charges its customers.[1] The distribution of profits by the coöperative store is somewhat as follows: Every time that a purchase is made by a customer who is entitled to share in the profits of the store, he receives a ticket showing the amount of the purchase. At the end of, say, three months, all ticket holders present their tickets at the store, and receive an amount of the net profits which is in proportion to the amount of their individual purchases. Generally each individual receives his profits in a lump sum.

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[1] The expenses of conducting the store are deducted from the gross profits, of course.

The experience of coöperative stores shows that thrift is encouraged by this practice of paying profits at the end of a certain period, and in a lump sum. If members received their profits in the form of a slightly lower price for each commodity as they purchased it, there would be very little incentive to put by and invest the difference between the price in the coöperative store and the price in the privately owned store. Customers would probably consider this amount too small to bother with, even if they took the trouble to figure out what it would be. But where the profits are paid in a lump sum, the amount is large enough to induce many members to save and invest it.

300. Consumers' coöperation in Europe. — The first genuine coöperative store in the world was established in England in the first quarter of the nineteenth century.[1] In 1844 there was established in England the Rochdale Equitable Pioneers Society, the most famous of all consumers' coöperative societies. This society, modest in its beginnings, has grown steadily and rapidly since 1850. To-day consumers' coöperation in some form is a factor in the daily lives of possibly half the population of Great Britain.

Consumers' coöperation is also well known on the continent of Europe. France and Germany witnessed a strong development of consumers' coöperation after the middle of the nineteenth century. In Holland and Belgium the movement secured a foothold at a relatively early day. The movement is also strong in Italy, Switzerland, Austria, the Scandinavian countries, and other parts of Europe.

301. Consumers' coöperation in the United States. — The consumers' coöperative movement began in the United States about the middle of the nineteenth century. For a long time however, practically all of the attempts to establish consumers' societies were failures. As late as 1896, indeed, there were fewer than one hundred coöperative stores in this country. After the opening of the twentieth century, the movement experienced a revival, and in 1922 the Coöperative League of America reported more than 3000 coöperative stores in the United States. These were located chiefly in New England, the North Central states, and the Far West. At the present time the consumers' coöperative movement is spreading rapidly in this country.[1]

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[1] The origin of consumers' coöperation is discussed in the *Readings*, pages 295–297.

b. Coöperation in credit

302. The object of coöperation in credit. — A second form of coöperation is known as credit coöperation, or coöperation in credit. The object of this form of coöperation is to enable persons of small means to secure loans at reasonable rates. Often a poor man cannot borrow money under any circumstances, because he has no adequate security to give the lender. Even though he may be able to get a loan on his own responsibility, it often happens that an individual has to pay a higher rate of interest than he would have to pay if he were a member of a coöperative group. Coöperation in credit enables the individual to secure a loan, and to secure it on terms more favorable than those which he would have to meet as an individual.

The more important forms of credit coöperation may be illustrated by examples in Germany and in the United States.

303. Credit coöperation in Germany. — In Germany an important form of credit coöperation is known under the name of Schulze-Delitzsch, Delitzsch being the name of the town where a man by the name of Schulze originated this form of credit coöperation.

According to the Schulze-Delitzsch plan, a group of persons form a credit society by contributing a proportion of their personal savings to a common fund. On the strength of this capital, and of their own individual liability, they borrow more capital. The total amounts thus brought together are then loaned out to the members of the society at a specified rate of interest. This rate of interest is *higher* than that at which the group had borrowed money from outside sources; nevertheless, it is *lower* than the rate members would have to pay if they individually secured loans at a bank. For example, the group might borrow money at six per cent and charge its members seven per cent. The one per cent difference would be used to defray expenses of the credit society. The member would gain from this arrangement because if he, individually, borrowed money, he might have to pay, say, eight per cent.

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[1] For a further discussion of consumers' coöperation in the United States, see the *Readings*, pages 297–299.

The Schulze-Delitzsch societies are urban or semi-urban, and are composed chiefly of artisans and small traders. Similar societies exist in Germany for the extension of credit facilities to rural dwellers.

304. Credit coöperation in the United States. — In the United States two types of credit coöperation call for brief mention.

(*a*) *The credit union.* — The credit union has been established for the purpose of allowing members to borrow at a reasonable rate of interest "for productive and other beneficial purposes." Laws authorizing the organization of credit unions have been enacted in a number of states. A credit union is formed by a number of individuals who buy shares of stock in the union, and who may also deposit money with the union just as they might with a savings bank. Interest is paid on the deposits, and dividends are paid on the shares of stock. Loans are made to members out of the funds accumulated by these two methods. Ordinarily loans are secured by the promissory note of the borrower, and do not extend beyond a year. The management of the credit union is by a board of directors and other officers, all of whom are chosen by the members of the credit union as a body.[1]

(*b*) *The building and loan association.* — Even better known in the United States is coöperation in credit by means of the building and loan association. There are at present several thousand of these associations in the United States, comprising a total of more than 3,000,000 members.

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[1] For a further discussion of the credit union in the United States, see the *Readings*, pages 299–302.

The chief object of the building and loan association is to enable members to acquire homes, loans seldom or never being extended to foster industry. As in the case of the credit union, the building and loan association is a combination of savings bank and loan agency. Persons desiring to become members are required to buy shares in the enterprise, and are entitled to a loan as soon as they have paid for a certain proportion of the stock purchased. The loan is secured by a mortgage on the house which the borrower is building or proposes to build. There is provision for the gradual payment of the loan at a moderate rate of interest. The great merit of this form of credit coöperation is that it enables many of the working classes, and indeed many business and professional men, to own their homes.

c. Coöperation in marketing

305. The nature of coöperation in marketing. — We have seen that an intricate and sometimes wasteful system of marketing is characteristic of capitalism. For example, the farmer's produce is often handled by so many middlemen that by the time it reaches the consumer it has doubled or trebled in price. The object of coöperation in marketing is to reduce the number of middlemen who ordinarily stand between producer and consumer. Most commonly, producers who desire to market their produce coöperatively join together and select certain of their members to attend to some of the phases of marketing formerly controlled by outside commission agents and other middlemen. Generally, coöperation in marketing reduces the scope of the middlemen's activities, rather than altogether eliminating such marketing specialists.

306. Coöperative marketing in Europe. — Coöperative marketing is well known in many parts of Europe. In Denmark and other Scandinavian countries agricultural producers very commonly combine to market their goods without material assistance from outside middlemen. In collecting milk and making butter, in curing and shipping bacon, in packing and selling eggs, and in handling other types of produce, the farmers of Scandinavian countries effect a considerable saving through coöperation. Coöperative marketing is also practiced in Holland, in Belgium, and, to some extent, in France.

307. Coöperative marketing in the United States. — Of recent years coöperative marketing has developed rapidly in this country, finding particular favor among the farmers and truck gardeners of the Middle and Far West. At the present time there are in this country several thousand cheese factories and creameries which market their product coöperatively. Very important, too, are the numerous coöperative grain elevators throughout the West. By combining in this way farmers secure better terms from railroads, commission houses, and other middlemen, than would be possible if they were acting singly. Another phase of coöperative marketing is the coöperative fruit marketing association, of which there are upwards of a thousand in this country. The California Fruit Growers and Shippers Association, maintaining auction rooms in eastern cities for the sale of its own product, is an excellent example of what may be done in this way.[1]

d. Producers' coöperation

308. Two varieties of producers' coöperation. — There are two varieties of producers' coöperation.

The first variety is what the Coöperative League of America calls "true producers' coöperation." In this form, producers' coöperation is engaged in only by persons who are already members of consumers' coöperative societies. Their product is intended, not for the general market where it would come into competition with the products of non-coöperative establishments, but exclusively for the use of consumers' societies. This form of producers' coöperation is often successful, because (*a*) with the aid of consumers' societies it is able to amass the necessary capital, because (*b*) it has the benefit of experienced managers, who have been trained by consumers' societies, and because (*c*) it has a definite body of customers, *i.e.* the members of consumers' societies.

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[1] For a further discussion of coöperative marketing in the United States, see the *Readings*, pages 303–305.

The second variety of producers' coöperation is quite different. In this form, a group of workmen come together without regard to whether or not they are members of a consumers' society. These individuals subscribe or borrow capital, purchase tools, materials and plant, and set themselves up as producers for the general market. They direct the enterprise as a group or through salaried agents, share the profits among themselves, and accept the risks of the enterprise.

Notwithstanding the emphasis which the Coöperative League of America places upon the first variety of producers' coöperation, that variety is of little significance as a program of industrial reform. It grows out of the consumers' coöperative movement, and may be considered as a part of that movement. Far more significant is producers' coöperation of the second variety. In this type of coöperation individuals attempt to do away with the enterpriser, to run an enterprise coöperatively, to take the profits of the enterpriser for themselves, in short, to carry on modern competitive industry without one of the great productive groups — enterprisers. In the following paragraphs, therefore, we shall devote our attention to this type of coöperation, and by the term "producers' coöperation" we shall mean only the second variety.

309. The extent of producers' coöperation. — In contrast to the flourishing condition of the other three forms of coöperation, producers' coöperation is practically non-existent. It has been tried repeatedly in the various countries of Europe, but on the whole without success. In England and France there have been occasional instances of success, but on the whole, it is everywhere admitted, this form of coöperation is a failure.

In the United States three quarters of a century of experiment have yielded a negative result. From 1845 down to the present time, numerous groups have attempted the coöperative production of furniture, underwear, brooms, coal, pottery, soap, and other commodities, but without success.[1] Formerly the Minneapolis Barrel Works was a coöperative establishment which seemed destined to attain a considerable success in production, but this group eventually abandoned the coöperative principle.[2]

310. Why producers' coöperation is a failure. — Consumers' coöperation, coöperation in credit, and coöperation in marketing encounter no very great obstacles, since their fundamental aim is to eliminate unnecessary middlemen. Producers' coöperation, on the other hand, encounters an insuperable obstacle because it attempts to do away, not with unnecessary middlemen, but with the enterpriser where he is most needed.

For this reason producers' coöperation is a failure, and will probably continue to be a failure. To run a modern business of any size at all requires a degree of intelligence, imagination, judgment, courage, and administrative ability which is altogether too rare to be found among casual groups of laborers. Varied experience, high ability, the determination to accept the risks of the enterprise, and a consistent singleness of purpose are necessary to modern production. Even though coöperators are able to secure an amount of capital sufficient to initiate production, they rarely have the necessary ability or business experience; too often they object to accepting the risks of the enterprise; practically never can they administer the business with that unity of control which characterizes the most successful business enterprises.

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[1] For a further discussion of this type of producers' coöperation, see the *Readings*, pages 305–307.

[2] The coöperative marketing of fruit, cheese, and other agricultural products is, practically always, not producers' coöperation, but only the coöperative marketing of commodities produced by non-coöperative enterprisers.

e. Coöperation at home and abroad

311. Coöperation in the United States is relatively backward. — In every type of coöperation, progress has been much slower in this country than in Europe. There are a number of reasons for this.

For one thing, American workmen move about to a greater extent than do European workmen, whereas coöperation succeeds best where the coöperatives have a fixed residence and develop a strong feeling of group solidarity. The fact that our population is made up of diverse racial types likewise checks the growth of group solidarity.

An important reason for the backwardness of the coöperative movement in this country is that American workmen "make, rather than save money," whereas coöperation requires thrifty habits and a willingness to practice small economies. Again, the efficiency and progressiveness of our industrial system render coöperative ventures less necessary in this country than in some parts of Europe. It is particularly true that retail stores in the United States are more efficient than similar shops in England and on the Continent.

Altogether, the most successful coöperators in this country are not native-born Americans, but groups of Finns, Russians, Slovaks, and other peoples of immediately foreign derivation. It is among these groups that the thrift and group solidarity demanded by coöperation are most frequently found.

312. Summary and forecast. — In this chapter we discussed the economic program known as coöperation. We found coöperation to be of four types: consumers' coöperation, coöperation in credit, coöperation in marketing, and coöperation in production. The first three of these fall in a group by themselves, because they have for their chief purpose the elimination of unnecessary middlemen. Each of these forms of coöperation has enjoyed a considerable success in the United States.

Coöperation in production was seen to be an entirely different affair. Here a group of individuals attempt to produce for the open market, and to do away with the enterpriser. Producers' coöperation is universally a failure, in striking distinction to the other three forms. Lastly, we noted that all four forms of coöperation are more backward in the United States than in Europe.

We conclude that the most successful types of coöperation are those which seek merely to patch up or improve the capitalistic system; the one form of coöperation which really strikes at a fundamental principle of that system is a failure.

In the next chapter we shall consider the interesting doctrine of single tax.

Questions on the Text

1. What is meant by the term "coöperation," as it is used in this chapter?
2. What is the purpose of consumers' coöperation?
3. Discuss the prices charged by the coöperative store.
4. How are the profits of the coöperative store distributed?
5. What is the extent of consumers' coöperation in Europe?
6. What is the extent of consumers' coöperation in the United States?
7. What is the object of coöperation in credit?
8. Explain clearly the nature of credit coöperation in Germany.
9. What is the nature of the credit union?
10. Describe the nature of the building and loan association.
11. What is the purpose of coöperation in marketing?
12. What is the extent of coöperative marketing in Europe?
13. What is the extent of coöperative marketing in the United States?
14. What are the two varieties of producers' coöperation?
15. Why has failure been the universal fate of that form of producers' coöperation which produces for the general market?
16. Why is coöperation in the United States relatively backward?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXI.)

1. Who was Robert Owen? (page 295.)
2. What is the significance of the year 1821 in the history of coöperation? (page 296.)
3. In what sense was the term "coöperation" first used? (page 296.)
4. Discuss the progress of the consumers' coöperative movement in the United States. (page 297.)
5. What are the aims of the credit union? (page 300.)

6. What is the extent of the credit union movement in the United States? (pages 300–301.)
7. Outline the organization of the credit union in New York. (page 301.)
8. What are the chief conditions governing loans by the credit union? (page 301.)
9. What are the two kinds of advantages which result from coöperation in marketing? (page 303.)
10. What is meant by saying that "a coöperative enterprise is not automatic"? (page 304.)
11. What are some reasons why coöperative marketing is backward in this country? (page 304–305.)
12. Illustrate the failure of producers' coöperation between 1845 and the present time. (pages 306–307.)
13. Explain the statement that "coöperation aims at the economic emancipation of certain classes." (pages 307–308.)
14. What is meant by the statement that "coöperation aims to substitute solidarity for competition"? (page 308.)
15. What is the attitude of coöperation toward capital? (pages 308–309.)

Topics for Investigation and Report

1. The relation of coöperation to profit sharing.
2. The relation of coöperation to socialism.
3. Write to the Coöperative League of America, 2 West 13th Street, New York City, asking for free literature on coöperation in your section. If any coöperative societies are found to be close at hand, make a study of one such society.
4. Draw up a plan for a coöperative buying club, and discuss with your fellow students the chances for its success.
5. Interview a friendly grocer as to his attitude toward the consumers' coöperative movement.
6. Credit coöperation in Germany.
7. The credit union in your state.
8. The building and loan association in your state.
9. The relation of the high cost of living to the marketing of agricultural produce.
10. Coöperative marketing in Denmark.
11. Instances of coöperative marketing in your section.
12. Draw up a plan for the coöperative marketing of some agricultural product in your section.
13. Interview some one familiar with farming conditions as to the reasons why coöperative marketing is not more popular with the American farmer.

14. The Federal Farm Loan Act of 1916.
15. Interview some one familiar with farming conditions as to the advantages and disadvantages of the Federal Farm Loan System.

Questions for Classroom Discussion

1. Which of the four types of coöperation do you think most important?
2. Does the elimination of middlemen always result in a gain to the community?
3. What is the relation of immigration to the coöperative movement?
4. Are the farmers in your section in need of credit facilities?
5. Is the extension of credit facilities to farmers, through the Federal Farm Loan System, a patronizing attitude on the part of the Government?
6. Contrast the obstacles to producers' coöperation a hundred years ago, and to-day.
7. Suppose that the gradual Americanization of our people renders them more homogeneous. Will this influence the coöperative movement?
8. Discuss the social advantages of coöperation.
9. Which are the more important, the social or the economic advantages of coöperation?
10. In what way does a consumer who gets credit at a store and then fails to pay his debts, injure all other persons buying at that store?
11. Discuss the statement that "cash payments make a person live within his income."
12. Advantages of the "cash payment" plan from the standpoint of the coöperative store.
13. The significance of the mail order house.
14. Outline a comprehensive program for the elimination of marketing waste in this country.
15. Very often producers' coöperative societies which have a fair start toward success abandon the coöperative principle, and become privately owned corporations. Why?

CHAPTER XXII

SINGLE TAX

a. Nature of the single tax

313. The single tax defined. — The words "single tax" refer to a policy under which all public revenue is to be raised by a single tax on land value. All other taxes are to be abolished.

By land value is meant the value of the land itself, irrespective of all improvements, such as ditches, drains, hedges, and buildings. Everything done on the land to increase its value would be counted as an improvement, and would thus be exempt from taxation. This would leave only location value and fertility value to be taxed.

By location value is meant that value which is due to the situation of the land. For example, land in a wilderness has little or no location value, but if, later, schools, stores, railroads, and other elements of community life develop in that region, the land may take on great value merely because of its location in the community. The fertility value of land is that value which is due to natural endowment in the way of moisture, climate, and such soil elements as potassium and phosphates.

314. Henry George and his work. — The doctrine of single tax is closely associated with the name of Henry George, an American reformer who was born in 1839 and who died in 1897. His economic and social theories were best developed in his book, *Progress and Poverty*,[1] published in 1879.

In this book George points out that in spite of the progress of the world, poverty persists. This is due chiefly, he contends, to the fact that land owners have a monopoly of good land. These land owners take advantage of the scarcity of land to exact unduly high prices for its use. According to George, this monopoly of the "gifts of Nature" allows land owners to profit from mechanical inventions and other industrial improvements, while at the same time it keeps down the wages of the landless laborers. Wages remain low because the laborer is forced to take whatever remuneration the greedy land-owners offer him as compensation for working the land. "Thus all the advantages gained by the march of progress," George writes, "go to the land owner, and wages do not increase."

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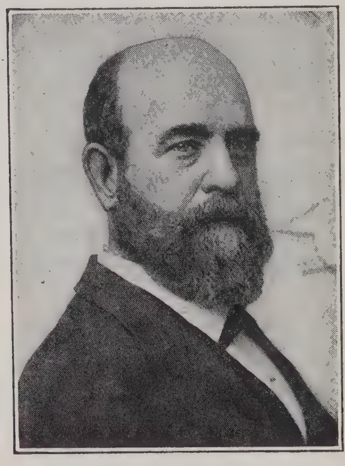
[1] Several extracts from this important book will be found in the *Readings*, pages 311–316.



HENRY GEORGE

George therefore proposed to use the single tax as an engine of industrial and social reform, that is to say, to apply it with the primary view of leveling the inequalities of wealth. Value due to improvements was to be exempt from taxation, so that land owners might not be discouraged from making improvements on their land. On the other hand, it was proposed that the single tax should take all of the income due to location and fertility. This, according to George, would "render it impossible for any man to exact from others a price for the privilege of using those bounties of Nature to which all men have an equal right."

315. Results claimed for the single tax. — Henry George claimed that the application of the single tax was highly desirable. If, through the medium of this tax, the government were to take from the land owners all the location and fertility value of their land, two great benefits were to result. First, rich landlords would be deprived of much unearned wealth.

This unearned wealth has been called the *unearned increment*, because it is said to be an increase, or enlargement, or increment, of wealth which has not been earned by the land owner. Second, the wealth so secured could be used to make life easier for the poor.

Ultimately, George went so far as to claim, the single tax would " raise wages, increase the earnings of capital, extirpate pauperism, abolish poverty, give remunerative employment to whoever wishes it, afford free scope to human powers, lessen crime, elevate morals and taste and intelligence, purify government, and carry civilization to yet nobler heights."[1] The steps by which George arrived at this gratifying conclusion are obscure, and practically every modern economist agrees that too much has been claimed for the theory of single tax. Nevertheless, there is much to be said on both sides of this interesting question. Let us notice some of the chief arguments for and against the single tax.

b. Arguments for the single tax

316. The single tax is a just tax. — Single taxers claim that it is just that the land owner be deprived of that land value which is not due to his individual efforts. Fertility, on the one hand, is due originally to the bounty of Nature, and as such belongs to all men equally, rather than to particular individuals. Location value, on the other hand, is due to the growth of the community, and should, therefore, be taken for the benefit of the community at large.

317. The single tax would encourage business. — Single taxers claim that an application of their doctrine would encourage business. Such a tax would eliminate taxes on live stock, buildings, and all other forms of property except land. This would encourage the development of the forms of property so exempted.

It has also been said that the single tax would force into productive use land which is now being held for speculative purposes. It is claimed that many city tracts remain idle because the owners are holding them in the hope of getting a higher price in the future. According to the single taxer, a heavy tax would offset this hope of gain, and would force speculators, either to put the land to a productive use, or to sell it to some one who would so employ it.

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[1] For a further discussion of the results claimed for the single tax by Henry George, see the *Readings*, pages 314–316.

318. The single tax would be easy to apply. — A last important argument in favor of the single tax is that it would be easy to apply. At the present time, the single taxer points out, we have a complex and cumbersome tax system which spends a great deal of money in the ineffective attempt to collect a wide variety of taxes. Such taxes as those on stocks, bonds, jewels, and other forms of personal property often are easily evaded, because such wealth can easily be hidden from the authorities. But land, the single taxer points out, cannot be hidden, and hence a single tax on land would be relatively easy and economical to apply.[1]

c. Arguments against the single tax

319. The single tax would be an unjust tax. — Probably the most important objection to the single tax is that it is unjust to confiscate land, or, what amounts to the same thing, to confiscate the income which land yields. "Pieces of land," Professor Seager points out, "have changed hands, on the average, dozens of times in the United States, and present owners have in most cases acquired them, not as free gifts of Nature, nor as grants from the government, but by paying for them, just as they have had to pay for other species of property." Where individuals have acquired land in good faith, and under the protection of a government which guarantees the institution of private property, the confiscation of land value would be demoralizing to the community and unfair to its land-owning citizens.

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[1] For a comprehensive summary of the arguments in favor of the single tax, see the *Readings*, pages 316–319.

320. The single tax might discourage business. — Another difficulty with the single tax lies in the ease with which value due to permanent improvements is confused with value due to location or fertility. Where money has been expended in draining land, removing stones, or applying fertilizer, it is difficult or impossible to tell, after a few years, what part of the value of the land is due to improvements. As a result, land owners might fear that the government would levy a tax which would take away some of the value due to improvements. This fear would undoubtedly cause some land owners to neglect to take steps to improve their land, and might even cause them to neglect to take steps to retain its original fertility. Thus the single tax might result in the decline of land values, and the discouragement of those industries which are based upon the use of land.

It is doubtful whether the single tax would force into productive use land now being held by speculators. Even though a heavy tax were laid upon such land, it would not be utilized unless there were an immediate use to which it could profitably be put.

321. The single tax would provide an inelastic taxation system. — It is also objected that the single tax would provide an inelastic taxation system. This means that it would tend to bring in an equal amount of revenue each year, whereas the revenue needs of government vary from year to year. A tax system should be elastic. This means that it will accommodate itself to the varying needs of the government, always meeting those needs, but at the same time taking as little as possible from the people.

Some single taxers have replied to this objection by declaring that the single tax could be made elastic by being adjusted in such a way as to take little from land-owners in a year in which government needs were small, and more when government expenses were higher. In rebuttal, the opponent of the single tax maintains that in actual practice this would be extremely difficult, if not impossible.

322. Land not the only source of unearned wealth. — A last important argument against the single tax is that there is no good reason for removing the tax burden from all individuals except those who own land. Land is only one form of wealth, and it is unfair not to tax individuals who hold property in some other form. Some land value is indeed unearned, but there are other forms of unearned wealth, as, for example, monopoly gains and inherited property. Taxes ought to be levied upon these forms of unearned wealth, as well as upon the unearned income from land. Thus in concentrating his attention upon one phase of unearned wealth, the single taxer has fallen into the error of ignoring or neglecting other and equally important sources of unearned wealth.[1]

d. Summary and conclusion

323. Limited appeal of the single tax doctrine. — Economists are unanimous in agreeing that the single tax, as expounded by Henry George, is too drastic and one-sided a reform to find wide favor in this country. Few students of the problem have been convinced that the adoption of George's doctrine would bring about the gratifying results which he predicted. The followers of Henry George have modified his original theory to a considerable degree, yet the appeal of the single tax has remained distinctly limited. A number of single taxers are enthusiastic over the doctrine, but this group is very small. A larger and more authoritative group of students accepts certain phases of the single tax doctrine, but rejects it as a panacea for industrial and social evils.

324. Services rendered by the single tax agitation. — Nevertheless, the single taxers have performed a number of valuable services. They have directed attention to the problem of poverty and to the necessity of attacking this evil. Although intent upon unearned land value, one result of their agitations has been to marshal public opinion against all forms of unearned wealth, and to help in the movement to tax incomes and inheritances more heavily.

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[1] For additional arguments against the single tax, see the *Readings*, pages 320–323.

The single tax doctrine has markedly affected the readjustment of taxes upon land. Undoubtedly it is true that in many cases the income from land is largely or entirely unearned. It would be manifestly unjust to dispossess present-day landowners who have acquired land in good faith; on the other hand, most economists agree that we ought to reform our taxation system so as to take for the community a larger share of the *future* unearned increment of land values. As Professor Taussig has pointed out, no one has a vested right in the indefinite future. The taking of this future unearned increment, it is hardly necessary to add, would not constitute a single tax, but rather a heavy land tax. Many other taxes would continue to be levied.

Let us turn, in the next chapter, to a program which is much more important than the single tax. This is socialism.

Questions on the Text

1. Define the term "single tax."
2. What is land value?
3. What is location value?
4. What is fertility value?
5. Who was Henry George, and when did he live?
6. How did George explain the persistence of poverty?
7. What is meant by saying that George proposed to use the single tax as an "engine of industrial and social reform"?
8. What benefits, according to George, were to result from an application of the single tax?
9. Why do single taxers claim that the single tax is a just tax?
10. What, according to the single taxer, would be the effect of the single tax upon business?
11. Why does the opponent of the single tax say that the single tax would be unjust?
12. What, according to the opponent of the single tax, would be the effect of such a tax upon business?
13. What is meant by saying that "the single tax would provide an inelastic taxation system"?
14. What is the significance of the fact that land is not the only source of unearned wealth?
15. What services have been rendered by the single tax agitation?

Questions on the Required Readings

(Williamson's *Readings in Economics*, Chapter XXII.)

1. Explain what George means by saying that "labor cannot reap the benefits which advancing civilization . . . brings, because they are intercepted." (pages 311–312.)
2. What six remedies for poverty were advocated in George's time? (page 312.)
3. What arguments does George advance in support of the statement that the institution of private property is unjust? (page 313.)
4. How, according to George, would the single tax facilitate the administration of civil and criminal law? (page 315.)
5. What, according to the single taxer, are the defects of our present tax system? (page 317.)
6. How would the single tax do away with these defects? (pages 317–318.)
7. What are some of the "social benefits of the single tax"? (pages 318–319.)
8. In what countries is the single tax said to have succeeded? (page 319.)
9. What does the opponent of the single tax say as to the defects of our present tax system? (pages 320–321.)
10. Name the chief defects of the single tax as a system of taxation. (pages 321–322.)
11. What are said to be the defects of the single tax as a scheme of social and economic reform? (page 323.)
12. What has been the influence of the single tax agitation upon the movement to conserve our natural resources? (page 324.)

Topics for Investigation and Report

1. The life and work of Henry George.
2. The status of private property under the Constitution of the United States.
3. Interview a local tax assessor as to the difficulty of discovering the existence of various types of wealth.
4. The single tax movement in your state.
5. Interview a business man on the merits of the single tax.
6. Interview a landowner on the merits of the single tax.
7. The increase in land values due to the growth of your community
8. The extent to which your state taxes unearned wealth.
9. The relation between the single tax doctrine and socialism.

10. Select for study a plot of farm or garden land in your locality.
    - (*a*) What is the market value of the land?
    - (*b*) Is it more or less valuable than similar plots in the same neighborhood? Why?
    - (*c*) To what extent is the value of the plot selected for study due to natural fertility?
    - (*d*) To what extent is the value due to location?
    - (*e*) To what extent is the value due to permanent improvements, such as drains, ditches, hedges, fences, or the use of fertilizer to retain or increase the natural fertility?
11. Select for study a plot of ground in your locality which has been idle for a number of years.
    - (*a*) Why has this plot been idle so long?
    - (*b*) Do you believe that this land is being held for speculative purposes?
    - (*c*) If so, suppose that a very heavy tax stimulated the owner to put the land to some use. Do you know of a productive use to which it could be put?

Questions for Classroom Discussion

1. Is land-ownership a monopoly?
2. How would you determine the amount of unearned increment in your community?
3. Discuss the difficulties of distinguishing between value due to natural fertility and value due to such improvements as drains and the use of fertilizer.
4. Is the holding of city tracts for speculative purposes a serious evil in your section?
5. It is said that in countries in which land has been under cultivation for a very long period, the original fertility — due to natural endowment — has long ago been exhausted, and that the present fertility is the result of man's careful husbandry of the soil. Supposing this to be true, what is the bearing of this fact upon the single tax discussion?
6. To what extent would a single tax on unearned income from land force into productive activity capable persons now living in idleness?
7. Do you think a single tax could be made to yield the enormous sums needed to finance American government?
8. To what extent is poverty actually the result, directly or indirectly, of the private ownership of land?
9. Social advantages and disadvantages of the private ownership of land.

10. Just what is the difference between the single tax and "a heavy land tax"?
11. Could you draw up a plan which would secure to the community the future unearned increment of land, and which at the same time would not work an injustice upon land owners?
12. To what groups of our population does the single tax doctrine appeal most? To what groups does it appeal least?

CHAPTER XXIII

THE GENERAL NATURE OF SOCIALISM

325. Socialism is a vague term. — It is often said that the term " socialism " is so vague that it is useless to attempt to define it. The word is used to cover all sorts of schemes of social and industrial reform. Sometimes a person whose viewpoint concerning politics or business has become more liberal appears to himself or to others as a socialist. From the standpoint of many individuals, all those who advocate the extension of government control are socialists. Still others label as socialists all reformers with whose ideas they are not in accord. It often happens that persons who pass in the community for socialists are not recognized as such by the official socialist parties. Indeed, certain official socialist groups go so far as to declare that other official socialist groups are " not really socialist," either in thought or in action.

326. A definition of socialism. — The confusion over socialism and its meaning arises from a number of causes. Probably the most important of these are the diversity among socialist groups, the steady and rapid development of socialist doctrine, and the general ignorance of the public with regard to the background and nature of socialism. The existence of diverse groups within the socialist movement renders difficult any exact definition of socialism, and yet most or all of these groups have the same fundamental basis. Leaving until later the distinction between the chief socialist groups, we may say that the following definition covers all who are strictly socialists:

Socialism is an economic theory which aims to abolish the capitalistic system, and to substitute for it a system of collective ownership and management of the socially necessary means of production and distribution. In rather more simple language, socialism demands the public ownership and management of practically all forms of wealth which can be used to get an income. Land, factories, workshops, railroads, these and other producers' goods would be owned and controlled by the municipality, the state, or the nation. Private property in producers' goods would be practically abolished, as would the competitive system. Since all enterprises would be owned or supervised by some government agency, practically all persons would be employees of the government. The distribution of wealth would be directed by the government, rather than being determined by competition as now.

327. The ownership of property under socialism. — It is important to note that socialism expects to abolish, not *all* private property, but only private ownership of the instruments of production. The great mass of factories, railroads, and similar equipment would be owned by the government, because these forms of wealth are clearly used to get an income. By abolishing the private ownership of such forms of wealth, socialism expects to eliminate such forms of income as rent, interest, and all elements in profits except wages of management. The one great form of income would be wages and salaries, paid to individuals by means of some government agency.

On the other hand, socialism intends that individuals shall continue in possession of goods which are not used to secure an income. Thus under socialism individuals would continue to own furniture, personal clothing, books, and perhaps even a dwelling house. Of recent years, too, some groups of socialists have decided that individuals might safely be permitted to own small bits of land.[1]

328. Socialism and anarchism. — The ease with which radical theories are confused in the popular mind renders necessary a careful distinction between socialism and the programs often associated with it.

Anarchism and socialism are both alike and unlike. They are alike in that both object to one man's having authority over another. Anarchism agrees with socialism that capitalism is bad because it gives the employer power over the laborer. But at this point the two theories begin sharply to diverge. Socialism desires to abolish private property in producers' goods, and thus greatly to increase the power of the state at the expense of private individuals. The anarchist maintains that this is simply a transference of authority, and declares that authority in any form is an evil. Thus where socialism seeks to enlarge the powers of the state, anarchism objects to all such governmental authority as exists to-day.

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[1] The present tendency among the more progressive socialists is to enlarge the number of things which might be left to private ownership under a socialist régime.

329. Socialism and communism. — The terms " socialism " and " communism " call for careful distinction. What is now known as socialism was formerly known as communism. For example, Karl Marx, the founder of modern socialism, called himself a communist. His followers later abandoned the name, and began calling themselves socialists.

Strictly speaking, socialism may be sharply distinguished from what is now commonly understood as communism. Communism is now generally thought of as a type of small community organization in which all wealth, including both producers' goods and consumers' goods, is owned by the community. A number of communistic societies were founded in various parts of the United States during the first half of the nineteenth century. Some of these, such as that of New Harmony, Indiana, were established by idealistic social reformers of the type of Robert Owen, the English philanthropist who also originated the term coöperation. Owen believed that by resorting to a simple and primitive type of life, individuals could escape the evils of capitalism. Other societies, such as those of the Amana group in Iowa, and those of the Shakers along the Atlantic seaboard, have a religious basis. In general, however, communism has been a failure, and it is not now of importance as a scheme of industrial reform.

What we think of as socialism is quite different.[1] Whereas communism aims at the communal ownership of all wealth, socialism attacks only income-producing property. Communism desires to establish an idealistic life of a primitive nature, while socialism aims at large-scale production with all of the benefits of modern civilization. Communism flees from the evils of capitalism; socialism attempts to eliminate those evils by destroying capitalism.

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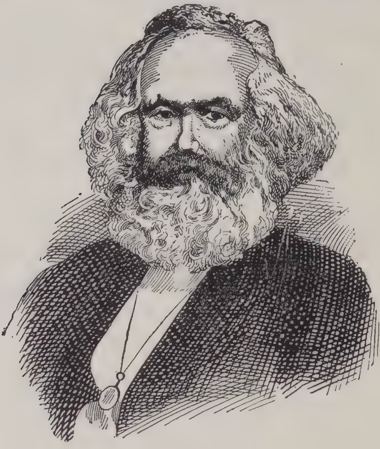
[1] The group of Russian socialists commonly known as " bolshevists," sometimes refer to themselves as " communists," but in general communism is to-day understood in the sense in which the term is used in the preceding paragraph.

330. Karl Marx and his influence. — The germ of socialism can be traced back as far as Plato, but the modern movement is quite recent. Socialism as such was unknown until nearly the middle of the last century.



Karl Marx

Socialism in its present form takes its main impetus from the teachings of Karl Marx. Karl Marx was a German Jew, who lived between 1818 and 1883. Marx early became known for his radical views on political and economic subjects. In 1848 he published, with the assistance of Frederick Engels, the well-known Communist Manifesto. This document, which has been called the "birth-cry of modern socialism," gives in concise form the essence of socialist doctrine.[1]

In 1862 Marx helped to organize the "International," a federation of radical thinkers, with affiliations in the different countries of Europe. In 1867 he published the first volume of his celebrated work, *Capital*, which elaborated the views set forth in the Communist Manifesto, and which has since been adopted as the "Bible of Socialism." Due to the great influence which Marx has exerted upon socialist thought, he may properly be called the founder and inspiration of modern socialism.

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[1] Two extracts from this important document will be found in the *Readings*, pages 329–333.

331. The socialist indictment. — In Chapter XIX we outlined the charges which various groups of reformers have brought against capitalism. Although these charges correspond pretty closely with the socialist view of capitalism, it will clarify our discussion to review, briefly, the essential elements in the socialist's indictment of the present order.

As formulated by Marx and elaborated by his followers, the claims of socialism constitute a serious indictment of present-day society. Socialists call attention to the fact that harmful and luxurious goods are produced; they maintain that our natural resources have been monopolized by a few individuals. They believe that the system of private property in producers' goods is unjust, and they declare that competition involves needless duplication of effort, as well as unnecessary injuries to those who meet defeat in the competitive struggle. At the present time, the socialists claim, practically all of the good things of life go to a very few, while the masses remain in poverty and misery. According to the socialist, the fruits of capitalism are unemployment, industrial accidents, poverty, disease, crime, vice, war, and premature death.

332. The theory of surplus value. — Marx claimed that practically all wealth has been created by the laborers alone, and that all persons other than laborers are parasites. Marx developed this socialist or labor theory of value somewhat as follows:

The value of a commodity is determined solely by the amount of socially necessary labor expended upon its production.[1] But although the laborer produces practically all wealth, the capitalist[2] is enabled, by virtue of his monopolistic control over the instruments of production, to prevent this wealth from going entirely to the laborer. Socialism declares that the capitalist holds the laborer in slavery. The laborer is a slave because he receives only enough of the wealth created by him to enable him to keep alive, while the surplus of this wealth goes to the capitalist. The capitalist is thus said to be a parasite who performs no useful task, but who robs the laborers of the fruits of their industry.[1] Marx did not regard profits as reward for business enterprise, but called them "plunder." Capitalism, according to this view, is a system of theft, involving "misery, oppression, slavery, degradation, and exploitation."

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[1] The full significance of this statement is explained in Marx's own words in the *Readings*, pages 326–327.

[2] By " capitalists " socialism means not only individuals with money to invest, but employers in general, whether middlemen, enterprisers, or capitalists in the strict sense.

333. Class struggle. — Marx declared that the capitalistic system was doomed to destruction. He maintained that, as time went on, wealth would tend to concentrate more and more in the hands of the capitalist or employing classes. Trusts and monopolies would become more common, and gradually capitalism would become so unwieldy and unworkable a mechanism that it would finally fall to pieces of its own weight. Crises, panics, and trade depressions were supposed to be indications of this inevitable disaster.

The increasing concentration of wealth in the hands of a few was to be accompanied by the growing misery of the masses. Marx believed that the middle classes would eventually disappear, leaving only the wealthy employers and the miserable laborers. The individuals comprising these two classes would steadily draw apart into two great armies which were destined to battle to the death. Socialism denies that employers and laborers have anything in common, and insists that between these two groups a struggle must go on until the employing class is destroyed.[2]

334. How shall we classify the varieties of socialism? — The student ought never to lose sight of the fact that there are so many types and varieties of socialism, that general statements are exceedingly dangerous. A great deal of talk about socialism is wasted because different persons are thinking of entirely different types or phases of socialism, and carelessly omit to designate precisely what kind of socialism they refer to. On the other hand, it is quite difficult to distinguish between the types of socialist belief. In the first place, the varieties of socialism grade into one another very easily. In the second place, there is a great deal of difference of opinion, even among members of a particular group, as to the dominant principles of that group. How, then, shall we classify the varieties of socialism?

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[1] For Marx's explanation of precisely how this "robbery" is effected, see the *Readings*, pages 327–329.

[2] For a discussion of class struggle from the socialist point of view, see the *Readings*, pages 329–333.

There are two ways of approaching this problem. We may classify the varieties of socialism on the basis of their ultimate aims, or on the basis of the methods which they now employ in the effort to attain those aims. Socialists themselves prefer the former classification, but he who looks at socialism as a practical, present-day program has more cause to classify socialist groups on the basis of their present methods of procedure. The ultimate aims of socialism are so vague, so various, so far distant, that they offer little practical basis for classification. On the other hand, the methods of socialism are well-defined, and are so much a matter of concern *now* that it seems reasonable to look at socialist groups on the basis of what they are actually doing to achieve their ends.

335. The two great groups of socialists. — The history of socialism furnishes a clue to the methods of present-day socialist groups. Throughout the greater part of his life Karl Marx openly advocated violence and revolution as a means of securing the downfall of capitalism. Socialists, says the Communist Manifesto, " disdain to conceal their views and aims. They openly declare that their ends can be attained only by the forcible overthrow of all existing social conditions." Toward the end of his life, Marx changed this view somewhat, and apparently came to believe that, in some countries at least, the overthrow of the capitalistic system would come gradually and without bloodshed.

In accordance with this later view of Marx, there is to-day a considerable socialist group which disavows violence. Members of this group are known as *political socialists*, because they rely chiefly upon political weapons. On the other hand, many socialists cling to Marx's earlier insistence upon violence as a means of attaining socialist ends. Members of this latter class may be called *militant socialists*, because they favor the overthrow of society by force rather than by the development of political power. These two great groups of socialists may be clearly distinguished on the basis of the methods which they prefer.

336. Political socialism. — In general the political socialists constitute the more intelligent and enlightened socialist group. Of the several hundred thousand socialists in the United States the great majority may be classified as political socialists.

The political socialist relies chiefly upon the growing political and economic power of the working classes to effect the abolition of capitalism. This emphasis is particularly noticeable in the United States and other democratic countries where the franchise is widely extended, and where the will of the people is reflected through the action of their chosen representatives. The political socialist makes a large use of propaganda. He tries to stir up the laborer, to create in him a feeling of solidarity with his fellow workmen, and to incite a feeling of antipathy toward, and even hatred of, the employing class. The political socialist emphasizes or exaggerates the undesirable side of the laborer's side, and endeavors, by promise of an industrial millennium, to rouse him to political action. "Workmen of the world, unite, you have nothing to lose but your chains," is the slogan of the political socialist.[1]

337. Militant socialism: the I.W.W. — There are two groups of militant socialists which are of special interest to American students of socialism.

One of these is an American group known as the Industrial Workers of the World, or simply as the I.W.W. This organization was formed in Chicago in 1905. The I.W.W. accept such fundamental doctrines of socialism as the labor theory of value and the doctrine of class struggle. However, they insist upon methods which are more militant than those of political socialism. The political socialists prefer political action to violence; the I.W.W. prefer violence to political action, and so far have repeatedly refused to affiliate with any political party.

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[1] The aims of two American socialist groups are clearly set forth in the *Readings*, pages 333–335.

The militant methods of the I.W.W. include an excessive use of the strike, and the extensive practice of sabotage. By sabotage is meant any sort of deliberate action on the part of workmen which results in the destruction of the employer's property. Some forms of sabotage are injuring delicate machinery, exposing the employer's trade secrets to rival employers, lying to customers about the quality of the goods, crippling locomotives so that they will not run, and shipping perishable food-stuffs to the wrong destination.

The I.W.W. have made little progress. The movement has centered in those parts of the Far West in which industry is less well organized and family life less stable than in older sections of the country. Miners, lumbermen, and railway construction workers are prominent in the movement. In general, the I.W.W. doctrine appeals chiefly to the lower strata of unskilled labor, to young unmarried laborers, to homeless workers, to transients, and to unassimilated immigrants. The better trained, more responsible, and more intelligent American workmen reject the program of the I.W.W. At present the I.W.W. number a scant 25,000, a very small number compared to those who favor some form of political socialism. A few political socialists sympathize with the attempts of the I.W.W. forcibly to overthrow existing society, but most political socialists condemn this form of militant socialism.

338. Militant socialism: the bolshevists. — The term "bolshevist" is used to designate a group of militant socialists that seized power in Russia in the fall of 1917. The bolshevist constitution, issued in 1918, was a strange compound of liberal and despotic elements. On the one hand, it promised that the people should enjoy complete freedom of speech and of the press, that they should have the benefits of free and universal education, and that the suffrage should be widely extended. On the other hand, it prohibited the suffrage to a number of important groups of the population, including all persons engaged in private trade, even to the smallest shop-keeper. Lastly, the constitution provided for a despotism, under which the two bolshevist chiefs, Lenin and Trotzky, proceeded to establish a dictatorship over the masses of the Russian people.

The chief purpose of the dictatorship was to facilitate the substitution of socialism for capitalism. Socialism, so long only a theory, was first applied as a national system under the bolshevists. Private property in land was abolished, the arable land of Russia being apportioned among the laborers without compensation to the former owners. All mines, forests, and waterways of national importance were taken over by the central government, while the smaller woods, rivers, and lakes became the property of the local governments. Banking establishments were seized. Inheritance was abolished. Private initiative in industry was forbidden. Members of the capitalist and employing classes were murdered, imprisoned, or driven from the country. In a word, the capitalistic system was destroyed, and the economic and political machinery of the country came under the full control of a small socialist group, maintained in power by armed force.[1]

339. Summary and forecast. — Socialism is an economic theory which aims to abolish the capitalistic system, and to substitute for it a system of collective ownership and management of the socially necessary means of production and distribution. Socialism should be clearly distinguished from anarchism and communism. Modern socialism goes back to Karl Marx, who was largely instrumental in developing the labor theory of value and the doctrine of class struggle. Socialists may be classified as either political or militant. Most American socialists may be classified as political socialists, though one small group, known as the I.W.W., is militant in its methods. A second and more important group of militant socialists is made up of the bolshevists, who seized power in Russia in the fall of 1917.

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[1] An extended extract from the bolshevist constitution will be found in the *Readings*, pages 336–338.

In the next chapter we shall present the case for socialism.

Questions on the Text

1. Illustrate the statement that " socialism is a vague term."
2. Define socialism.
3. Discuss the ownership of property under socialism.
4. How is socialism like anarchism? In what way are the two theories different?
5. Distinguish socialism from communism.
6. Who was Karl Marx, and when did he live?
7. Describe the part which Marx has played in the socialist movement.
8. Summarize the charges which the socialist brings against capitalism.
9. Explain clearly the nature of the theory of surplus value.
10. What does the socialist mean by the term " class struggle " ?
11. What are the two ways of classifying the varieties of socialism?
12. What is meant by the term " political socialism " ?
13. What is meant by the term " militant socialism " ?
14. Who are the I.W.W., and what is the nature of this socialist group?
15. Who are the bolshevists?
16. Describe the nature of the bolshevist constitution.
17. Describe the introduction of socialism into Russia.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXIII.)

1. What, in essence, is Marx's theory of value? (page 326.)
2. Explain what Marx means by " socially necessary " labor-time. (pages 326–327.)
3. What is Marx's conclusion with regard to the labor theory of value? (page 327.)
4. What statement by Marx follows logically from his acceptance of the labor theory of value? (page 327.)
5. Explain how the laborer produces a surplus. (page 328.)
6. Explain Marx's claim that the capitalist secures this surplus produce. (pages 328–329.)
7. Distinguish between the terms " proletariat " and " bourgeoisie." (page 330.)

8. What is the function of the laboring class with regard to the class struggle? (page 332.)
9. Explain the aims and methods of communism (socialism) as stated by Marx and Engels. (pages 332–333.)
10. What group does the Socialist Party of America claim to represent? (page 333.)
11. For what purpose does this party urge the political and economic organization of the working class? (page 334.)
12. What is the fundamental aim of the Socialist Party of America? (page 334.)
13. What claim is advanced by the United Communist Party with reference to the ability of socialism to improve the lot of humanity? (page 335.)
14. Discuss the nationalization of property as provided for by the bolshevist constitution. (pages 336–337.)
15. Discuss the nature of the suffrage under the bolshevist constitution. (pages 337–338.)

Topics for Investigation and Report

1. Ask a business man, a clergyman, a lawyer, and a laborer for their definition of socialism. Compare the answers with the definition offered in Section 326 of the text.
2. The life and work of Robert Owen.
3. The history of communistic experiments in the United States.
4. A detailed study of some one communistic society in the United States.
5. The limitations of communism as a scheme of industrial reform.
6. The life and work of Karl Marx.
7. The life and work of Eugene V. Debs.
8. The history of socialism in the United States.
9. Methods of classifying the varieties of socialism.
10. Origin and history of the I.W.W.
11. Interview a local trade unionist as to his opinion of the I.W.W.
12. Present activities of the I.W.W.
13. The origin of bolshevist rule in Russia.
14. The character of Lenin, the bolshevist chief.
15. Present status of bolshevism in Russia.

Questions for Classroom Discussion

1. What is meant by the statement that " socialism is a movement, not a program "?
2. Some socialists are coming to believe that under a socialist rule

it might be well to permit the private ownership of agricultural land. Why?

3. Communistic societies with a religious basis have lasted longer than societies without a religious basis. Why?
4. From your observation of industrial conditions, would you say that the doctrine of class struggle is justified?
5. Do you see any connection between the extension of the suffrage and the decline of militant socialism?
6. Why do you suppose that Marx turned more and more toward peaceful methods as he grew older?
7. A common way of measuring the strength of socialism is by the number of votes cast for socialist candidates in elections. Can you think of any reasons why this method is inexact and misleading?
8. What is the relation of the trade union movement to the socialist movement?
9. Discuss the statement that " labor is the mother of all value."
10. To what groups of our population would you expect socialism to make a strong appeal? To what groups would you expect it to make a weak appeal?
11. A great many people mistakenly believe that socialism aims to divide all wealth equally among the population. How do you suppose such an impression of socialism arose?
12. What were your ideas of socialism before reading this chapter?
13. What opinions of socialism have you gained from this chapter?
14. Is socialism strong or weak in your community?
15. What is the difference between socialism and social reform?

CHAPTER XXIV

THE CASE FOR SOCIALISM

340. The point of view in this chapter. — This chapter discusses socialism, neither from the point of view of the socialist, nor from the standpoint of the anti-socialist. On the contrary, the point of view in this chapter is that of a neutral and impersonal observer, who recognizes that socialism is an important movement, and who is willing to listen to such arguments in its favor as appear to him reasonable and worthy of consideration. In the following discussion we shall assume that an intelligent and fair-minded non-socialist is reporting what appear to him as the more reasonable and significant of the claims of the socialist.

The student should bear in mind, however, that the arguments advanced in this chapter are not necessarily accepted by the author of this text, or by economists in general.

Let us notice, now, the two great claims of socialism. First, socialism claims to be able to effect a scientific reorganization of our industrial system. Second, socialism claims that the results of this reorganization would be highly beneficial.

a. The scientific reorganization of industry

341. The obligation to work. — Under socialism private initiative would be suppressed, and the control of our industrial system would be centered in the hands of society, functioning through some agency of government. As a first step toward the scientific reorganization of industry, a socialist state would oblige all able-bodied persons to work. The " idle rich," as well as all other persons who at present idle away a part or all of their time, would find it necessary to apply themselves steadily to some sort of work considered productive by the socialist state.

342. Every individual to be used with maximum efficiency. — In addition to exacting labor from all those who are capable of working, socialism would try to employ every individual with maximum efficiency. Under a socialist régime, practically all individuals would be in the service of the local, state, or national government. As a result, laborers could easily be directed by the governing authorities to the occupations in which it was thought that they would be most helpful. We are told that persons of influence would not be allowed to retain responsible jobs or positions if they were found to lack honesty and the requisite ability. Likewise, individuals in humble circumstances might be elevated to responsible positions if found honest and capable. Thus under socialism, we are told, merit would supplant "pull."

343. Only goods of social importance would be produced. — The socialist intends, furthermore, to direct the entire labor force of the nation toward the production of only those goods which could be called "socially important." By "socially important" goods is meant such goods as actually strengthen and otherwise benefit the consumer.

According to this theory of the socialist state, such harmful goods as liquors, drugs, and adulterated foods would cease to be produced. This could actually be accomplished, because the state would be in control of the entire labor force of the nation, and laborers would have to produce what they were told to produce. Under socialism, the production of luxuries would be greatly diminished.

On the other hand, a socialist society would encourage the production of durable and wholesome goods calculated to benefit the consumer. First of all, a socialist society would attempt to produce an abundance of shoes, clothing, food, and other necessities. Once the entire population was provided with these necessities, a socialist state would probably stress the production of the decencies and comforts of life.

344. Production to be adjusted to the needs of the community. — Socialism would attempt to control the productive mechanism in such a way as to adjust the supply of goods to the actual needs of consumers. If certain goods, such as lumber or stoves or hats, were badly needed, the socialist society would direct to the production of those goods a number of laborers sufficient to produce an adequate supply. But since the socialist state would be in control of the entire productive mechanism of the country, it could see that no goods would be produced in excess of the actual need for them. Socialists believe that they could estimate the probable future demand for goods, and accordingly produce just enough of those goods to satisfy the demand. By this means, the socialist declares, socialism could eliminate over-production, crises, and other maladjustments characteristic of capitalism.

345. The marketing of goods. — Just as a socialist society would aim at the scientific reorganization of production, so it would endeavor to organize marketing upon a more efficient basis than exists under capitalism.

Numerous types of middlemen would continue to exist, but everywhere the socialist state would attempt to coördinate these so as to eliminate waste. Whereas at the present time a number of milkmen serve a section of a city which could be served by a single milkman, under socialism all but one of these middlemen would be eliminated. Under the competitive system a small town may be served by two or three grocers or butchers; under socialism a single shop or store might serve the entire community.

Moreover, socialism plans to suppress those forms of business activity which have for their chief purpose the wresting of trade from competitors. An army of traveling salesmen, advertising specialists, and other middlemen would be done away with by the process of directing these individuals to occupations considered productive by the socialist state. The millions of dollars spent upon competitive advertising and other forms of competitive marketing would be saved by a socialist state. In brief, business would be controlled, not by the free and almost haphazard competition of innumerable individuals as now, but by the deliberate exercise of authority by the socialist state.

b. The effects of this reorganization

346. Why the socialist wishes to reorganize industry. — We have indicated, in some detail, the manner in which socialism plans to reorganize our industrial system. Let us notice, now, that this reorganization is only a means to an end. The chief object which the theory of socialism holds in view is to use the productive mechanism to benefit the community to the greatest extent possible. Human beings, their happiness, their fullest development and improvement, these are said to be the aims of socialism. Thus the whole purpose in reorganizing industry is to render the industrial mechanism so efficient that the wants of the masses of the people may be satisfied to a greater extent, and with less difficulty, than at the present time. Let us turn to the socialist's plan to use an improved industrial mechanism to increase human welfare.

347. Personal income under socialism. — Under the competitive system most individuals receive an income which is large or small, according as individual consumers are willing to pay for the service which they render. Thus under competition a manufacturer who supplies people with cigarettes may reap high profits and enjoy a large income; on the other hand, a laborer who is unable to sell his skill may starve because of lack of income. Under the capitalistic system, the industrial activities of individuals are relatively unfettered, and there is no super-authority to limit the size of income.

But under the system contemplated by socialism, competition is abolished, and practically all individuals become employees of some agency of government — local, state, or national. The significance of this statement is profound, for it means that under socialism the personal incomes of the masses of the people could be controlled by some central authority. And socialism intends that there shall be some such control, and that the size of individual incomes shall be established — not by open competition as now — but by the deliberate decision of the socialist state. As to whether an individual would fare well or ill under socialism would depend entirely upon what the socialist authorities happened to think of his abilities and deserts.

One of the greatest problems facing the socialist, therefore, is to decide upon what basis personal incomes are to be determined. Socialists are not in agreement upon this vital question, but it will be worth our while to consider the three chief plans which have been suggested.

348. Personal income on the basis of need. — Some socialists believe that individuals ought to be allowed an income which will enable them to satisfy their needs. This suggestion might appear difficult to carry out, because of the great variation in the needs of individuals. For example, an intelligent, studious boy needs more education than a child with no bent for intellectual pursuits. Likewise, a delicate woman needs more in the way of recreation and medical attention than does a strong, rugged woman. Again, in order to do good work, a sensitive, temperamental man may need more in the way of comforts and beautiful surroundings than does the average manual laborer. In short, there are innumerable differences in the apparent needs of individuals.

It has been suggested that a socialist society would simplify this whole problem by ignoring these differences. The socialist authorities might say, for example, that many of the apparent differences in human needs are the result of habit or training, and that these could be overcome by equal treatment. With reference to such basic considerations as the need for food, clothing, house-room, and elementary education, a socialist state might conclude that all individuals are sufficiently alike to warrant equal treatment. Lastly, there would be the temptation to ignore differences in needs because of the impossibility of accurately measuring these differences, and of separating the real from the imagined or the acquired. To conclude, it is likely that if socialism attempted to base personal income upon the needs of individuals, it would assume the needs of all individuals to be essentially alike.[1] This means that incomes would tend to be equal.

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[1] The trouble is, of course, that this is a false assumption. See the *Readings*, pages 363–366.

349. Personal income on the basis of sacrifice. — A second possible method of determining personal income under socialism is on the basis of sacrifice. This means that individuals would be rewarded by the socialist state in proportion as their tasks were difficult, long-continued, or disagreeable. For tasks of equal severity and distastefulness the same wage would be paid. Workmen engaged in light and relatively pleasant labor would receive less than those who engaged in fatiguing or dangerous occupations.

350. Personal income on the basis of efficiency. — A third important suggestion for the determination of personal income under a socialist régime is that individuals be rewarded in proportion to their efficiency. Instead of an individual receiving as much income as he needs, or an amount sufficient to reward him for the sacrifice involved in his labor, an individual might be paid in proportion as he is efficient. The man who was able to do work of great importance to the community would receive high wages, while low wages would be paid to persons performing tasks of small value. Energetic and intelligent workmen would receive more than stupid and inefficient laborers.

But is not efficiency the principle which underlies capitalism? It is true that the competitive system rewards individuals roughly in proportion as they are efficient, and yet capitalism and socialism look at efficiency in quite different ways. At the present time, efficiency depends upon the willingness of consumers to pay for goods and services. Thus a stock broker may enjoy a large income because his customers are willing to pay for his services. Such an individual may be said to be very efficient. Again, the author of inspiring poems might starve under the present system, simply because no one wants to pay money in order to read his poems. From the standpoint of capitalism such an individual exhibits no efficiency, and is of practically no value to society. *Under capitalism, efficiency means skill in doing something which other individuals are willing to pay for.*

When the socialist uses the term efficiency, however, he means *skill in doing something which really contributes to the public welfare.* Not the individual consumer, but the will of the socialist authorities, would determine whether or not an individual were efficient. The stock broker would probably be called inefficient and unproductive by a socialist state, on the grounds that his efforts did not contribute to the social well-being. On the other hand, socialism might declare an inspiring poet, or a teacher, or a scientist, to be an efficient and valuable citizen. Such persons might be handsomely rewarded by socialism because of the social importance of their services.

In planning to reward individuals on the basis of their efficiency, therefore, socialists mean efficiency at some work which the socialist society considers socially helpful and important.

351. Conclusion as to personal income under socialism. — Owing to the unsettled nature of this whole problem, we cannot draw any definite conclusions as to the methods by which socialism would determine the personal incomes of individuals. It is probably fair to say that no important socialist group now favors distribution solely on the basis of need, though this principle would certainly have a strong influence upon the policies of a socialist state. Distribution on the basis of need would play an especially important part in the care of dependents and other individuals really unable to earn enough to support themselves decently. Most socialists now lean toward the idea of some inequality in personal incomes, and admit that personal incomes would be definitely affected by the efficiency of individuals. In order to grapple effectively with the complexities of modern life, it is likely that a socialist society would base personal incomes, not upon any single principle, but upon several principles. The relative importance of these principles would depend upon the group of individuals under consideration, as well as upon other circumstances.

352. The problem of the rich man. — Although socialists are not in agreement as to the method of determining the personal income of the masses of individuals, they are pretty well agreed as to the attitude which a socialist society would assume toward the rich man on the one hand, and toward the poor man on the other hand.

Certainly socialism would abolish what it considers to be *unearned* wealth. Since practically all forms of income-producing wealth would be directly under the control of the socialist authorities, individuals could easily be prevented from securing an unearned increment from land or other natural resource. Likewise, it would be easy to prevent individuals from enriching themselves by means of monopoly.

It seems probable, too, that socialism would limit the size of *earned* incomes. The socialist state might set a maximum reward, beyond which the wages of the most useful and productive individual could not go. This procedure would probably be justified by the socialist on the grounds that excessive income reacts to the injury of both individual and community. On the one hand, riches may deaden the ambition of their possessor, and cause him to turn to slothful and injurious ways of living. On the other hand, the community suffers the loss of a productive worker when the accumulation of wealth causes an able man to withdraw into a life of leisure. If this individual spends his money in luxurious living, the community also suffers from this uneconomical use of wealth.

We may conclude, then, that socialism aims to destroy the leisure class which now subsists upon its accumulated wealth. Unearned incomes would not arise under socialism, and probably there would be a limit to the size of earned incomes. Under a socialist régime great riches would thus tend to disappear.

353. The problem of the poor man. — Socialists are also quite definitely agreed as to the attitude of a socialist society toward the poor. Socialists hope that they can so increase the efficiency of the productive mechanism that the cost of producing goods will be greatly lowered, and that as a result the poor may purchase goods at much lower prices than is possible at the present time. It is planned, too, to guarantee the very poor a decent living by in some way permitting them to have an income sufficient for their basic needs. Socialism also plans greatly to enlarge the social functions of the state. In an earlier chapter, we saw that Henry George believed that an application of the single tax would enable the government to provide a great many services for the people, in addition to those now rendered. Similarly, the socialist believes that he could greatly increase and extend the services rendered to the masses of the people by means of government. Crime, housing, illiteracy, vice, disease, these and other social problems the socialist declares that he could practically eliminate.

354. The services rendered by socialism. — Whether or not we believe socialism to be practicable, all fair-minded people must admit that socialism has performed a number of valuable services. It has called the world's attention to the problem of poverty, to the abuses of great wealth, and to the shameful spectacle of an industrial system oppressing the lives of many of its human attendants. Socialism has set many people to thinking in terms of public welfare, and to looking at industry from a public-spirited rather than from a selfish point of view. It has set up a discussion of what constitutes justice and happiness, it has quickened the heart and the conscience, and it has inspired with the fervor of idealism many people who otherwise would have looked little distance beyond their own private affairs.

355. Summary and forecast. — The two great claims of socialism are, first, that it can reorganize industry upon a scientific basis, and second, that the results of this reorganization would be highly beneficial to society.

With respect to the scientific reorganization of industry, socialism would oblige all able-bodied persons to work, and it would endeavor to use all workmen at maximum efficiency. A socialist society would permit the production of only those goods which it considered socially important. Likewise it would endeavor to adjust production to the actual needs of the community. Needless duplication and competition in marketing would be eliminated, it is claimed.

Since practically all individuals would be employed by some government agency, a socialist state could easily control personal incomes. A first proposal for the determination of personal incomes is on the basis of need, a second is on the basis of sacrifice, and a third is on the basis of efficiency at work considered important by the socialist authorities. As to the precise manner in which personal incomes would actually be determined there is no agreement among socialists. However, socialists are agreed that unearned wealth should be abolished, and that probably there should be a limit to the size of earned incomes. The poor, on the other hand, might find their lot improved under socialism, at least so we are told by the socialist.

Having thus presented the case for socialism, let us summarize, in the next chapter, the chief objections which the economist brings against this interesting and important program of industrial reform.

Questions on the Text

1. Explain carefully the point of view in this chapter.
2. What is a first step toward the socialist's reorganization of industry?
3. Explain the statement that socialism "would try to employ every individual with maximum efficiency."
4. What types of goods would a socialist society produce?
5. How might a socialist society attempt to adjust production to the needs of the community?
6. What changes would the socialist attempt to bring about in marketing?
7. Why does the socialist wish to reorganize industry?
8. Show that personal incomes under socialism would not be determined by competition.
9. Discuss personal income on the basis of need.
10. What is meant by the distribution of incomes on the basis of sacrifice?
11. Explain carefully what the socialist means by basing personal income on efficiency.
12. What conclusions may we draw with respect to the problem of personal incomes under socialism?

13. What would be the attitude of socialism toward unearned wealth? Toward earned wealth?
14. How would socialism attempt to improve the lot of the poor?
15. What services have been rendered by socialism?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXIV.)

1. What is the fundamental idea upon which socialism rests? (page 340.)
2. What demands does science make upon men? (page 341.)
3. Compare science and socialism in this regard. (page 341.)
4. What is meant by saying that socialism would reduce the " chance element in production "? (pages 342–343.)
5. Illustrate the way in which individuals produce without knowledge of what their competitors are doing. (page 343.)
6. How does the socialist propose to overcome the evil results of this situation? (pages 343–344.)
7. Why might socialism reduce the wastes due to mistaken undertakings? (page 344.)
8. What is the attitude of socialism toward the problem of distributing wealth? (page 345.)
9. Illustrate the statement that " deserving persons may be denied a proper satisfaction of their wants, while irresponsible persons waste wealth." (page 345.)
10. How might goods be valued under socialism? (page 348.)
11. What can be said as to the accumulation of capital under socialism? (pages 348–349.)
12. What, according to William Morris, has the individual a right to expect in the way of health? (page 350.)
13. Outline the claims of William Morris with respect to education and leisure. (page 350.)
14. Summarize what William Morris calls his " claims for decent life." (page 351.)
15. What is the attitude of socialism toward the idle classes? (page 352.)

Topics for Investigation and Report

1. Classes of our population not now regularly employed at productive labor, but who might be put to work by a socialist state.
2. The change which would be effected in American industry if the production of harmful and useless goods were suppressed.
3. The likelihood that socialism would be able to prevent crises.

4. Changes which a socialist state would probably make in the marketing mechanism in your section.
5. The nature of government under socialism.
6. Attitude of socialism toward natural resources.
7. Relation of price fixing to the labor theory of value.
8. Attitude of socialism toward education.
9. Attitude of socialism toward the family.
10. Attitude of socialism toward the church.
11. The maintenance of capital under socialism.
12. Personal liberty under socialism.
13. Inventions under socialism.
14. The relation of socialism to art.
15. The relation of socialism to the development of personality.

Questions for Classroom Discussion

1. Can the habitual idleness of able-bodied individuals be defended on moral grounds?
2. Some people condemn socialism because certain socialists are irreligious; others maintain that the religious views of socialist leaders have nothing to do with the merits of socialism. Discuss.
3. How would a socialist state fix the prices of goods?
4. Advantages and disadvantages of distribution according to need.
5. Advantages and disadvantages of distribution according to sacrifice.
6. Advantages and disadvantages of distribution according to efficiency.
7. Discuss the socialist motto, "Only workers shall eat."
8. Should socialism attempt to limit the size of incomes which are earned?
9. Should socialism condemn inheritance?
10. What goods now produced freely would probably be eliminated by a socialist state?
11. Would laborers work more willingly under socialism than under capitalism?
12. Name some classes who might lose under socialism.
13. Name some classes who might gain under socialism.
14. Some people condemn the whole theory of socialism because "socialism never did anything, while capitalism has done great things." What do you think of this argument?
15. Does this chapter appear to you to have presented a strong argument in favor of socialism?

CHAPTER XXV

THE CASE AGAINST SOCIALISM

356. The objections to socialism are of three kinds. — In this chapter we shall present the case against socialism. Our argument will be divided into three parts, to correspond to the three types of objections which have been brought against socialism.

Firstly, it will be pointed out that socialism probably could not reorganize industry in accordance with the principles outlined in the last chapter.

Second, we shall see that there are good reasons to suppose that a socialist state would not use its power for the highest public good.

Third, it will be pointed out that socialism is not necessary to effect the reform of American industry.

These three types of objections will be discussed in the order in which they have been enumerated.

a. Socialism probably could not reorganize industry as it wishes

357. Administrative difficulties in a socialist state. — Under socialism the work of government would be greatly increased. Of recent years some socialists have protested that under socialism industry would be controlled by the "community" or the "people," rather than by government agencies. But the "community" or the "people" would have to function through well-defined government agencies, and for this reason we must conclude that the adoption of socialism would mean a tremendous increase in the powers and duties of the agencies of government. In addition to carrying on its present functions, the government would be saddled with the appalling amount of business now conducted by millions of individuals acting in their own private interest. Thousands of intricate administrative rules would have to be drawn up for the control and direction of activities now attended to by laborers, capitalists, middlemen, enterprisers, and the professional groups.

Now it is seriously to be questioned whether the most carefully organized government could effectively administer the innumerable activities of our complex industrial life. Upon what basis would land be distributed? How would individuals be apportioned among the various employments? What agency of government could properly determine the rewards which ought to go to millions of people, performing tasks of almost infinite variety, and character, and importance? Could so mechanical an agency as government foresee business conditions expertly enough to direct the productive forces of the nation effectively? What government agency could plan and initiate new enterprises with the energy and skill now exhibited by enterprisers whose wits are sharpened by the desire for private gain? Who would decide as to what types of goods should be produced and which types of goods should not be produced? Or who would say when the production of each of an almost infinite variety of goods should be slackened and when stimulated? If prices are no longer to be fixed by competition, how and by what means are they to be determined?

These are only a few of the vital questions which would arise in connection with the administration of a socialist state. They are quickly enumerated, and yet each one has numerous complications. Various suggestions have been made with regard to some of these difficulties, but there is among socialists no general agreement as to the answer to these questions. They continue to constitute, in the eyes of practical men, a grave obstacle to socialism.[1]

358. What type of government would exist under socialism? — A serious objection to socialism is that the type of government which would be necessary from the economic standpoint would be dangerous to human liberty.

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[1] For a further discussion of the points brought out in this Section, see the *Readings*, pages 361–366.

In order to coördinate the productive resources of a great nation, and in order to permit government agencies to direct these resources as a unit, a socialist government would have to be very highly centralized. Socialists protest that the socialist state need not be highly centralized, because control over industry would be divided among municipal, state, and national governments. But in order to secure the ends which socialism seeks, the powers of local governments would have to be clearly subordinate to those of state governments, while the powers of the state governments would have to be clearly subordinate to those of the national government. Otherwise the productive mechanism of a great country such as the United States could not be effectively coördinated and directed. Also, great power would have to be lodged in a relatively small group of officials, and a great mass of lower civil servants would have to obey orders without question. Otherwise there would continue to exist the very duplication, waste, and cross-pulling which the socialist has charged against capitalism.

The difficulty is that although this type of government might be enabled to direct industry efficiently, it would encourage corruption and despotism. The abuse of governmental powers has unfortunately characterized even those governments over which the people exercise considerable control; it seems probable that the still greater centralization of authority required by socialism would increase this danger. Socialists may protest that a socialist state would be controlled by the "people," but no government could carry on the functions of a socialist society without the grant of extraordinary powers; the mere possession of such powers, combined with the failings of human nature, would endanger liberty.

If socialists attempted to prevent corruption and despotism by establishing a democratic government, they would encounter the difficulty of effective industrial management. Democratic government has great merits, but democracy means insecure tenure of office and changeable policies, according as political control swings from one party to another. This would work evil in industrial management, for so gigantic a process as managing the industries of the nation calls for unified control, singleness of purpose, and a freedom from political jugglery. If government is to decide upon such vital topics as wages and prices, democratic control would most certainly mean an incredible amount of graft on the part of the agents of government. Every section of the country would have something to gain by exerting political pressure in favor of laws and decisions affecting wages and prices within its limits.

359. Socialism would destroy personal initiative. — There is every reason to believe that socialism would destroy the personal initiative which has been so largely responsible for the success of capitalism. Let us inquire into the reason for this.

Socialism runs counter to human nature by undervaluing the principle of self-interest. Economists and others are generally agreed that the ambition of the individual would slacken if socialism were to abolish private property in producers' goods, as well as freedom of competition, and private initiative in trade. The reason for this is that socialism would render it impossible for the individual to reap a money profit by struggling to win the favor of those who will pay him for the commodity or service which he has to sell.

In spite of its defects, it is the competitive system, with its promise of reward to the energetic and capable, which is largely responsible for the miraculous prosperity of modern times. Unless they are assured that they will be able to enjoy the fruits of their labor, men will not ordinarily undergo rigorous training, or perfect inventions, or strive to introduce greater and greater economies in their work, or undertake the risk of initiating new enterprises.

Among the rank and file of industry, socialism would probably encourage laxness and shiftlessness. Socialism would guarantee every man a job, and would promise to protect every individual against want. This would discourage individuals from feeling a sense of personal responsibility, and would render extremely difficult the problem of dealing with the lazy and the indifferent. It is even likely that a socialist state would undertake to rear and provide for the offspring of its citizens. Human experience indicates that this degree of paternalism would encourage laziness and increase irresponsibility.

It is sometimes said that under socialism men would work as eagerly for social esteem as they now work for financial gain. This would be highly desirable, but unfortunately there is nothing in human experience to justify the hope that such a state of affairs will speedily be realized. The spread of altruism is heartening, but no sensible person will shut his eyes to the fact that for a long time to come self-interest promises to be much more widespread than altruism. The love of gain may not be the highest motive in life, but it is better than none, and for a long time to come it will probably be the one which appeals most strongly to the average man.

360. The example of bolshevism. — The first nation-wide application of socialism came in 1917, when the bolshevists seized power in Russia. A number of considerations prevent our drawing any hard and fast conclusions from the results of this experiment; at the same time it is interesting to note that this case of applied socialism confirmed many of the theoretical objections to socialism. *The example of bolshevism substantiated the claim that socialism could not reorganize industry on a more effective plan than now exists.* Let us briefly consider the case of bolshevism with reference to the points which have been made in the preceding discussion.

In the first place, the bolshevists encountered so many *serious administrative difficulties* that the productive power of Russia decreased instead of increasing. The scientific fixing of prices and wages, the efficient distribution of workmen among the various employments, the coördination of different industries, all these ideals were achieved only partially. Within a year after the introduction of socialism Russia was in the grip of famine and misery. The masses of the people were starving in a land of plenty.

In the second place, the bolshevists found it necessary to establish a *despotism* in order to control the industries of Russia. A successful application of socialist principles was found to be incompatible with a democratic government. As a result, the extraordinary powers assumed by the socialist state were highly centralized, and concentrated in the hands of a small, irresponsible group. The masses of the Russian people were placed under an arbitrary dictatorship, and were not even allowed the privilege of protesting against the lawless and inhuman acts of their masters.

In the third place, socialism in Russia did a great deal to *destroy personal initiative* among the people. Weary of the errors of their leaders, and demoralized by their rise to power, the laborers often refused to work at all. When they did work, it was sullenly and grudgingly, rather than with the loyalty and enthusiasm which socialists had predicted. The government attempted to force the laborers to their tasks by threats of imprisonment or death. In some parts of Russia the workers were attached to their tasks like serfs, and were even harnessed to carts like beasts of burden.

b. A socialist state probably would not use its power for the highest public good

361. The labor theory of value is unsound. — The whole socialist doctrine is founded upon the labor theory of value.[1] According to this theory commodities have value in proportion as socially necessary labor has been expended upon them. The labor theory of value has been discarded by every authoritative economist of modern times. As has been pointed out earlier in this text, value depends upon demand and supply. More concretely, value depends upon utility and scarcity. The soundness of the utility-scarcity theory, and the unsoundness of the labor theory, may be brought out by reference to three classes of goods.

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[1] Some socialists now deny that socialism is founded upon the labor theory of value, but from the statements and actions of the great majority of socialists, it is evident that the labor theory of value is still the basis of socialist doctrine.

First, there are commodities which have value in spite of the fact that no labor has been expended upon them. Virgin land, which is the gift of Nature, is the most important example. Articles of this class have value because they have the power to satisfy man's wants (*i.e.*, have utility), and because they are scarce. Labor has nothing to do with their original value.

Second, there are commodities which have no value, even though much labor has been expended upon them. A building erected in a desert or in a wilderness is an example. Unwanted books or paintings are other examples. Commodities in this class may represent a great expenditure of labor, and still have no value. The reasons for this are, first, that they do not satisfy anyone's wants, and, second, that they are not scarce, that is to say, there are not fewer of them than are wanted.

Third, articles may have a value which is out of proportion to the amount of labor expended upon them. The value of diamonds, old coins, and rare paintings generally is greatly in excess of the actual amount of labor involved in their production. A sudden change in fashion may cause the value of clothing and other commodities to rise or fall, with little or no regard to the amount of labor expended upon them. In each case it is utility and scarcity that determine value, and not labor.

362. Labor not the only factor in production. — The danger of the labor theory of value is that it tempts the socialist to exaggerate the importance of laborers, and to under-estimate the importance of the other productive groups. This error is explainable as follows. The laborer does most of the visible and physical work of industry, while the part played by the landowner, the capitalist, and the enterpriser is less physical and often is apparently less direct. The complexity of the industrial mechanism prevents the laborer from appreciating the true relation existing between his own physical labor and the apparently indirect, and often non-physical, efforts of those who coöperate with him. But as we have had occasion to see, the non-physical efforts of the enterpriser, for example, may be infinitely more valuable to the community than the energetic physical efforts of the laborer.[1]

363. The theory of class struggle is unwarranted. — The theory of class struggle is based upon the claim that most wealth is produced by the laborer alone. But we have seen that this claim is unfounded; therefore the theory of class struggle is built upon an error. Ultimately, the theory of class struggle tends to injure the very class which seeks to gain by advocating it, for true and permanent prosperity for the laboring class (as well as for all other classes of the population) can result only when all of the productive groups work together harmoniously. Fundamentally the quarrel between laborers and employers is as suicidal as though the arms of a human body refused to coöperate with the other members. There are, indeed, many antagonisms between laborers and employers, but socialism seeks to aggravate, rather than to eliminate, them.

364. Socialism favors some groups of people as against others. — The preceding discussion indicates that socialism would not use its power for the highest public good. The socialists, who might be supposed to consider as paramount the interest of the public, are the very people who are least inclined to do anything of the kind. Socialists tend to look upon the state chiefly as an agency for benefiting particular groups of individuals. The exaggeration of the industrial rôle played by laborers, and the tendency to minimize or altogether deny the importance of the other productive groups, these two facts mean that socialism would attempt to lavish the good things of life upon the laborers and to deal harshly with other groups of people. The emphasis of political socialism upon the class struggle, as well as the frank admissions of the I.W.W. that they seek to suppress all but the laboring classes, also points to the correctness of this conclusion.

365. The example of bolshevism again. — The career of socialism in Russia confirms the statement that a socialist state would favor some classes of the population as against others. In Russia the establishment of socialism was followed by a reign of terror. Members of the landowning, capitalist, and employing classes were imprisoned, murdered, or driven from the country. Thousands of innocent people were subjected to inhuman torture by the socialist fanatics who over-ran the country. Russia was red with blood. In many cases food was denied to all but laborers. The constitution of the bolshevists denied the suffrage and other important civil rights to large groups of the population. However socialists may protest, and whatever they may promise, the only known case of nation-wide socialism meant class rule of a violent and dastardly kind.

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[1] For a further discussion of this point, see the *Readings*, pages 357–359.

c. *Socialism is not necessary to industrial reform*

366. A fallacy. — Many people fall into an error or fallacy in studying the problem of reforming American industry. This fallacy is that socialism is the only alternative to capitalism in its present form. There are many people who admit the defects of socialism with a sad heart, because they imagine that the rejection of socialism means that the reform of American industry is impossible. But let us notice that although socialism appears so defective as to justify its rejection, there is yet hope for the reform of our industrial system. Indeed, there is every reason to believe that capitalism can be greatly improved without abandoning any of our fundamental institutions, and without endangering the civilization which we have so carefully and laboriously built up.

367. Socialism claims too much. — Socialism often appeals strongly to people who are unable to distinguish between plans which are realizable, and promises which cannot be fulfilled. For example, socialism promises greatly to increase the productive power of the nation,[1] to shorten the hours of labor, and to insure a just distribution of wealth. These reforms, it is claimed, would be accompanied by the elimination of unemployment, poverty, vice, and attendant evils. It is maintained that socialism would encourage a higher moral tone, and a healthier and more vigorous social life than now exists. In short, socialism promises a Golden Age.

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[1] The difficulties confronting socialism in this regard are discussed in the *Readings*, pages 361–363.

These are desirable aims, but we must face the fact that socialism cannot prove to us that it will be able to attain them. Some of the ills which socialism claims to be able to cure are neither attributable to capitalism, nor open to remedy by socialism. For example, crises and unemployment are often due to the alternations of good and bad harvests, to the varying degrees of severity in successive winters, to new mechanical inventions, and to changes in fashion. These forces are beyond the effective control of any state. This being so, it is unfair for socialists to attribute their evil effects to capitalism. It is also unwarranted that socialism should claim to be able effectively to control these forces.

Other industrial evils are due to the infirmities of human nature, and to the fact that we are a highly civilized people living more and more under urban conditions. Crime, vice, and disease are grave social problems which demand solution, but it is unfair for socialism to charge these evils against capitalism. Such defects are due partly to the fact that we are human, and partly to the fact that modern life involves a large amount of strain. Unless socialism contemplates a return to small, primitive communities (which it does not), there is nothing to indicate that it will be able materially to reduce crime, vice, nervous strain, or ill-health. Indeed, there is no good evidence to show that socialism could make as effective headway against these evils as we are making under capitalism.

368. Socialism under-rates capitalism. — The ardor of the socialist often causes him to under-estimate the merits of capitalism, and to exaggerate its defects. The striking achievements of capitalism are not generally appreciated by the socialist. On the other hand, the socialist places an undue emphasis upon the defects of the present system. The socialist too often overlooks the millions of happy, prosperous homes in this and other countries[1]; he too often sees capitalism in terms of poverty, crises, unemployment, vice, disease and degeneracy.

Our age is not to be despaired of. An age of progress is always an age of adaptation and of adjustment, and it is precisely because American democracy is both a progressive ideal, and a living, growing institution, that it is confronted with industrial problems. The socialist indictment is not a prelude to chaos, for through the process of adjustment we are making steady progress in improving our industrial system. Capitalism has served us well, and though it has serious defects, most economists believe that these are clearly outweighed by its merits. It is not a question of the defects of capitalism and the merits of socialism, but of which system shows the greatest predominance of merits over defects. Most economists believe that when all the factors are weighed, that we are justified in rejecting socialism as a proposed substitute for capitalism.

369. Socialism and social reform. — Socialism believes that there is more evil than good in capitalism, and that the reform of industry demands the abolition, rather than the improvement, of capitalism. Those who favor social reform believe, on the other hand, that there is more good than evil in capitalism, and that industrial reform may be accomplished by the improvement of capitalism.[2]

Formerly socialism and social reform were far apart. Measures advocated by socialists were considered by social reformers to be extreme and dangerous; the program of social reform was, on the other hand, thought by socialists to be conservative and superficial. During the last half century socialism and social reform have drawn closer together in their aims and ideals. In many cases socialists and social reformers now stand united upon identical projects.

Sometimes socialists say that this growing identity of interests means that the world is accepting socialism; often the opponent of socialism maintains that socialism is abandoning its former ground and is resigning itself to the ideal of an improved capitalism.

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[1] Socialists exaggerate the extent of poverty in this country. See, on this point, the *Readings*, pages 359–361.

[2] On this point see Professor Ely's discussion, the *Readings*, pages 366–367.

It is probably true that the convergence between socialism and social reform is due to a movement from both sides. Neither socialists nor social reformers have a monopoly of suggestions for industrial reform, and there is consequently nothing strange in the fact that often their plans coincide. It is undeniable that the extension of the suffrage has encouraged many socialists to turn their attention to the improvement of capitalism, so that for many socialists the supreme question has become, not how to destroy, but how to perfect capitalism. On the other hand, the greater insistence upon social justice, and the firmer voice of altruism, have drawn many social reformers toward programs formerly considered socialistic.

370. Summary and forecast. — In this chapter we presented the case against socialism, the discussion being carried on under three heads.

We saw, first of all, that in all probability socialism could not organize industry as it intends. Innumerable administrative difficulties would confront a socialist state. A highly centralized government would be necessary, but such a government is dangerous to liberty. Production under socialism would also suffer because of the likelihood that socialism would destroy personal initiative.

We saw, next, that there are good reasons to suppose that a socialist state would not use its power for the highest good. Socialism is based upon the labor theory of value and the doctrine of class struggle, and as a result socialism tends to minimize the rights of all but laborers. Bolshevism in Russia actually resulted in grossly unfair treatment of many groups of the population.

We saw, finally, that socialism is not necessary to industrial reform. Socialism claims too much and could not make good all of its promises. Socialism under-rates capitalism, which has more merits and fewer defects than socialists sometimes pretend. Lastly we noticed that socialism and social reform are drawing together in the matter of the reform of industry.

In the next chapter we shall sum up the whole problem of the reform of our industrial system.

Questions on the Text

1. What are the three kinds of objections which may be brought against socialism?
2. Name some of the administrative difficulties which would confront a socialist state.
3. What is the great danger of the type of government which socialism would probably need to establish?
4. What would probably be the effect of socialism upon personal initiative?
5. Would men work for social esteem as eagerly as they now work for financial gain? Explain.
6. What administrative difficulties confronted bolshevism in Russia?
7. Why were the bolshevists obliged to establish a despotism?
8. What was the effect of bolshevism upon private initiative?
9. Demonstrate the unsoundness of the labor theory of value with reference to three groups of goods.
10. How do you explain the tendency of the socialist to exaggerate the importance of the laborer in production?
11. Why is the theory of class struggle unwarranted?
12. What reasons have we for believing that socialism favors some groups of people as against others?
13. Into what fallacy do many people fall with respect to the problem of reforming American industry?
14. Explain the statement that "socialism claims too much."
15. In what way does socialism under-rate capitalism?
16. Describe carefully the manner in which socialism and social reform are gradually converging.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXV.)

1. What is the importance of attacking the labor theory of value? (page 355.)
2. Illustrate the fallacy of the labor theory of value with regard to agricultural produce. (page 356.)
3. What is Mr. Brasol's reason for saying that the formula that

labor is the sole producer of wealth must read as follows: "*Manual* labor is the sole producer of wealth"? (page 357.)

4. What criticism does Mr. Brasol bring against the American socialist, Mr. Hillquit? (page 358.)
5. What per cent of the gainfully employed population of the United States were included in the term "urban upper and middle class" in 1910? What per cent were in the rural group? What per cent were urban workers? (pages 359–360.)
6. What is meant by the "white collar" urban population? (page 360.)
7. What proportion of our gainfully employed population belonged to the independent class in 1910? (page 361.)
8. How does agriculture illustrate the difficulties confronting socialism in the field of production? (page 362.)
9. Under what circumstances, according to Schaeffle, would socialism possibly be able to increase the productivity of industry? (pages 362–363.)
10. Why does he not believe that such an increase would actually come about? (page 363.)
11. What, in brief, is the objection to socialism as a method of distributing wealth? (pages 363–364.)
12. What is the conclusion of Professor Ely with respect to the socialist method of distributing wealth? (pages 365–366.)
13. What does Professor Ely say as to the imperfections of the social organism at the present time? (pages 366–367.)
14. What did Aristotle believe to be the nature of virtue? How does Professor Ely apply Aristotle's concept of virtue to the industrial situation? (page 367.)
15. What, according to Professor Ely, is the promise of social reform? (page 367.)

Questions for Investigation and Report

1. Make as complete a list as possible of the administrative difficulties which would confront a socialist state. Use as a basis for this topic the information given in Section 357.
2. Make a brief study of the bolshevist constitution.
3. Violations of this constitution by the bolshevists.
4. The attitude of bolshevism toward classes other than the laborers.
5. Bolshevist propaganda in the United States.
6. The abandonment of socialist principles by the bolshevists.
7. Make a list of familiar commodities, and divide them into three classes for the purpose of illustrating the error of the labor theory of value, and the truth of the utility-scarcity theory.
8. The difficulties of directing our agricultural industries as a unit.

9. Select for study a shop, factory, or mill in your locality.
    (*a*) Does it appear that the interests of the laborers and the employers are in opposition?
    (*b*) Carefully observe the actual conduct of the business. Does it appear that the laborers alone create the product?
    (*c*) Do the laborers under observation appear to be getting barely enough in the way of wages to enable them to keep alive? Check your conclusion, if expedient, by visiting the homes of some of the laborers in question.
10. Attitude of the bolshevists toward democracy.
11. The reasons for the failure of bolshevism.
12. Make a study of unemployment in your locality, with particular reference to unemployment due to
    (*a*) climatic changes,
    (*b*) changes in fashion,
    (*c*) accidents, such as fire, flood, etc.
13. The relation of government ownership to socialism.
14. Interview an elderly friend or relative, with the purpose of securing a definite idea of the condition of the working classes a half century ago. Contrast with the condition of these classes to-day.
15. Contrast the program of socialists with that of the social reformer.

Questions for Classroom Discussion

1. Do you believe that our present form of government would be able effectively to administer a socialist society?
2. How would the introduction of socialism into this country affect the Constitution of the United States?
3. What special obstacles does agriculture offer to socialistic organization?
4. Can self-interest ever be eradicated from human nature?
5. Is it desirable that self-interest be eradicated from human nature?
6. Would any types of men work for social esteem as eagerly as they now work for money?
7. Was socialism given a fair trial in Russia?
8. What effect would the adoption of socialism have upon social problems?
9. To what extent is the term "socialist" used as a term of condemnation or reproach?
10. Although the working classes are increasingly prosperous, some socialists maintain that their misery is increasing, in the sense that they are unhappier than were workingmen of past generations. What do you think of this statement?

11. Does it appear to you that all of the community's citizens may be grouped into either a wealthy employing class, or into an impoverished laboring class?
12. Discuss the lot of the inventor under socialism.
13. Is interest in socialism in your section declining or increasing?
14. What effect has the failure of bolshevism had upon the socialist movement?
15. Why do you suppose that many socialists claim that bolshevism is not socialism?

CHAPTER XXVI

SUMMARY AND FORECAST

371. The purpose of this chapter. — The purpose of this chapter is to draw together the argument of the seven preceding chapters, and to present some definite conclusions upon the problem of industrial reform. This involves a three-fold discussion.

In the first place, we must reconsider the charges which have been brought against capitalism, since those charges underlie the whole problem of industrial reform.

In the second place, we must say a final word as to the relation of these charges to the various programs which we have been discussing. We have already indicated the limitations of single tax, coöperation, socialism, and the various plans to improve the wages system, and accordingly these programs will be referred to again, only in so far as they really promise to eradicate some particular defect in American industry.

In the third place, we must offer some definite suggestions for the eradication of the defects of capitalism. Otherwise, of course, our whole discussion of industrial reform would be negative and pointless.

a. The wastes of capitalism

372. The waste of natural resources. — It is charged that our natural resources have been wasted, and the truth of this charge must be admitted. But it should be pointed out, also, that we are now in a fair way to remedy this evil. The whole problem of the conservation of our natural resources is reserved for fuller treatment in the next chapter, but here it may be said that the last quarter of a century has witnessed a vigorous and widespread movement looking toward the preservation and protection of our forests, mineral lands, water power sites, and other resources. With the passage of each year the charge that we are wasting our resources becomes less and less important.

373. The waste of productive powers. — What shall we say in answer to the charge that under capitalism productive powers are often diverted to the production of goods which are not of the highest social worth? Undoubtedly it is true that under a freely competitive system, in which every individual is free to produce practically whatever type of good he wishes, there is a great deal of land, capital, labor and enterprise devoted to the production of harmful and useless goods. But the waste is probably less than it seems,[1] for the same freedom of competition which allows waste, also stimulates a much greater degree of productivity than would exist under a non-competitive system. No sensible man can look forward to an age in which absolutely no productive power will be diverted to the production of useless and harmful goods. Under any progressive government, however, there must ever be a trend toward the elimination of goods of this kind. The two methods by means of which this trend expresses itself are legislation and education. Let us notice each of these briefly.

(*a*) *Legislation.* — The passage of wisely-framed laws is doing much to cut down the production and consumption of goods which are not beneficial to the individual. An important step in this direction was taken in 1919 when, by the adoption of a Constitutional Amendment, the production, sale, and consumption of intoxicating liquors within the United States was prohibited. This diverted productive power valued at millions of dollars annually from a series of businesses which had long worked a great injury upon us. There are also to be found upon our statute books an increasing number of laws forbidding the adulteration of foods, the production of noxious medicines, and the sale of goods under names calculated to conceal their true nature. No one can survey the progress made in this direction in the last quarter of a century without being convinced that we are more and more attentive to the necessity of suppressing harmful goods.

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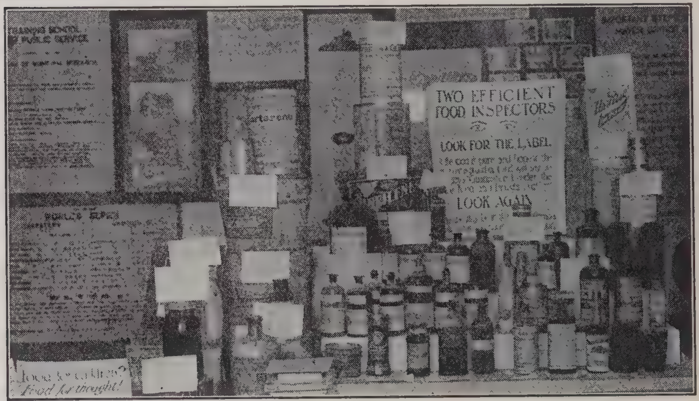
[1] For a further discussion of this point, see the *Readings*, pages 369–371.

(*b*) *Education.* — Laws forbidding the production of *harmful* goods may be expected to increase in number and effectiveness; for the suppression of *useless* or only slightly harmful goods, on the other hand, we must rely chiefly upon education. To educate people not to demand frivolous goods, or goods that benefit them only slightly, appears to many people a very slow method. This method is indeed a slow one, but it is certain and fundamental, for it strikes at the very source of the evil. Enterprisers will not produce this type of goods unless people will pay for them; if, then, we teach our boys and girls to prefer helpful to harmful goods, and goods which are helpful in the highest degree to goods which are only slightly helpful, then we shall be training up a nation of consumers who will not demand useless goods. As a result, the diversion



A PURE FOOD EXHIBIT

of productive powers to the production of such goods will decrease.[1]

374. The wastes of manufacturing. — It has been charged that our methods of manufacturing are wasteful. In many instances this is true, and yet the force of this charge is lessened by several considerations.

In the first place, the movement toward scientific efficiency is rapidly reducing waste in manufacturing. To a greater extent than ever before, the enterpriser is conducting his plant in accordance with scientific methods.[2] Scientific management promises a conservative revolution in this regard, and scientific management is only one phase of the efficiency movement. Technical schools, and colleges of business administration devoted to scientific business methods, are springing up rapidly. While there continues to be waste in capitalistic manufacturing, its methods of production are the most efficient that the world has ever known. Indeed, the socialist has been forced to the conclusion that in a socialist state it would be well to copy the efficient methods of present-day capitalists!

In the second place, the duplication of numerous manufacturing plants is not necessarily an evil. It is true that the competitive system permits a number of relatively small plants to produce for a market which could be supplied by fewer and larger plants. But investigations have shown that very large plants are often less efficient than small and medium-sized concerns, so that the excessive integration desired by some radicals might result in less, rather than in greater, efficiency. Again, the waste resulting from the duplication of plants is probably more than outweighed by the stimulating effect which competition has upon rival producers. The net result of this competitive system is probably that we gain much more than we would under any other arrangement.

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[1] As to what are helpful goods may be a debatable question. Wholesome food, "sensible" clothing, and elementary education may be said to be clearly helpful. On the other hand, the "helpfulness" of numerous other types of goods will depend upon a variety of circumstances. Fundamentally and ultimately, those goods are helpful which strengthen the nation, but in studying consumption from the standpoint of the individual this standard is often too vague and general to be of much service.

[2] Yet progress often increases discontent, as Professor Skelton points out in the *Readings*, pages 374–376.

375. The problem of over-production. — It must be admitted that under our present system there is great danger of over-production. How shall we protect ourselves against the crisis and the trade depression? No satisfactory answer can be given to these questions. The danger of these evils is inherent in the competitive system, and if we are to secure the great benefits of that system we must be willing to accept some of the attendant evils.

There are several ways, however, in which we are diminishing the force of these evils. In the first place, the perfection of means of transportation and communication is giving producers a more reliable knowledge of market conditions, and is thus helping them to adjust production to future demand. In the second place, the prediction of the conditions of supply and demand is becoming a distinct profession, with the result that the future can be read with more intelligence and skill than formerly. In the third place, the improvement of our banking system is helping us to grapple effectively with abnormal business conditions. In the fourth place, enterprisers of power and influence are tending more and more to coöperate with one another to eradicate dangerous industrial developments, because they realize that danger to one of their number may mean danger to all.

376. Wastes in marketing. — It must be admitted that there is a great deal of truth in the charge that under capitalism the process of marketing is very wasteful. And much of this waste will probably continue, for the duplication of which it is the result is an integral part of the competitive system. In its very essence competition implies that a number of individuals engage in a rivalry to supply a particular service, and that the victor or victors will be rewarded by the money which the consumer pays them for the service or good. Duplication and waste through competitive advertising and other marketing activities are, to a degree, the inevitable accompaniments of the great benefits of competition which we noted in Chapter XVIII. They are the thorns which accompany the rose of capitalism.

Nevertheless much can be done to decrease the wastes of marketing, without destroying the fundamental bases of capitalism. In this connection consumers' coöperation and coöperation in marketing are valuable. Important, too, is the movement to improve roads leading from farms to towns and cities, because good roads permit farmers to deal directly with urban consumers and thus eliminate a certain number of middlemen. In many rural districts there is also a movement to standardize agricultural produce, that is, to sell, say, potatoes as Class 1 or Class 2, so that purchasers may know without detailed examination what sort of goods they are buying. In a few states laws have been enacted to oblige commission agents in cities to be more honest and economical than heretofore. In many cities there are now municipal markets to which urban consumers are encouraged to come in order to buy produce at reasonable rates. These and similar measures are helping to reduce the wastes of marketing, even though in a piecemeal fashion.

b. Inequalities under capitalism

377. The community has a claim upon unearned wealth. — The opponents of capitalism have frequently pointed out that many individuals are in possession of wealth which they did not earn. Of course practically every individual may possess some wealth which he himself did not earn, but the charge of possessing unearned wealth is of particular importance in the case of the rich. As the single taxer has pointed out, some individuals have come into the possession of great wealth merely by retaining possession of urban tracts which rose in value because of community growth. Some enterprisers have undoubtedly secured unearned wealth by means of monopoly. In a large number of cases riches are inherited by individuals who themselves did nothing to earn this wealth. From the standpoint of the heirs, such wealth is unearned.

It is contended by many authorities that the community has a claim upon unearned wealth. Much of this wealth has come into the possession of individuals because of the protection of law, because of the industrial advantages of life in orderly communities, and because of community growth. For this reason, it is contended, the community is entitled to a share of this wealth. This contention is supplemented by the argument that those in possession of this wealth cannot protest that they individually and personally "earned" it.

378. How the community may appropriate a share of unearned wealth. — The reasoning of the preceding section is accepted by a great many economists and political reformers in this country, and as a consequence we are beginning to levy upon unearned wealth. There are three chief methods by means of which this is being done.

In the first place, we are beginning to levy heavier taxes upon the unearned increment of land.[1] It is likely that the future will witness a quite definite development in this direction.

In the second place, we are beginning to make an extensive use of taxation as a means of securing to the community a share of wealth which is inherited, but which has not been earned by the heirs. This particular form of taxation is known as the inheritance tax, and is used to take for the community a certain proportion of the total amount which an heir receives.

In the third place, we are passing more and more effective laws designed to curb or destroy monopoly. A measure of monopoly will probably continue in connection with numerous types of business, but as we shall see later,[2] the major forms of monopoly are now pretty well under control. Inheritance taxes tend somewhat to distribute wealth acquired by monopoly; anti-trust acts and other laws now tend to prevent the acquisition of monopoly profits in the future.

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[1] The problems of taxation are discussed in Chapter XXXII.

[2] Chapter XXVIII.

379. What shall be our attitude toward wealth which has really been earned? — Clearly the community has a claim upon unearned wealth, and, as we have just seen, we are beginning to appropriate a share of this wealth. With respect to the problem of dealing with wealth which has been earned fairly there is a difference of opinion. Some students declare that since this wealth has been earned the community has no claim upon it; others declare that the mere fact that an individual is possessed of great wealth entitles the community to appropriate a share of that wealth.

There is a confusion of thought here. One important reason why the community demands a share of unearned wealth is that such wealth has not been earned, and of course this reason would not apply to earned wealth. But there are other reasons for appropriating a share of an individual's wealth. An individual who is rich, and who has earned his riches, is in a better position to contribute to the expenses of government than is a poor man, and we accordingly find that income and inheritance taxes bear more heavily upon him than upon the poor man. It is also true that the community has a claim on all wealth which has been amassed under the protection of its laws. For these and other reasons the community takes a share of earned wealth, though on somewhat different grounds than in the case of unearned wealth.

380. The problem of poverty. — Poverty has existed in all ages and in all countries, and some measure of it will undoubtedly persist in spite of the most elaborate programs of industrial and of social reform. Many critics of the present order have charged poverty against capitalism, but although capitalism is responsible for a large measure of poverty, the problem is so vast and so many-sided that social, political and personal factors, as well as the economic factors, are involved. The student who pursues the subject of economics is merely observing poverty from one of a number of angles, and accordingly he must not expect that the key to the elimination of poverty lies wholly in economic reform. All we can do here is to indicate some of the ways in which industrial reform may help to remove the fundamental causes of poverty.

381. The bargaining power of unskilled laborers must be strengthened. — From the economic standpoint one important cause of poverty is low wages. From this it follows that poverty may be reduced by any and all processes which operate to raise wages. In an earlier chapter we saw that wages are determined by the forces of demand and supply. Low wages mean that the supply of labor is in excess of the demand for labor, and that as a consequence laborers are at such a disadvantage in bargaining that they are obliged to accept low wages. By far the most direct way of strengthening the bargaining position of laborers is to decrease the supply.[1]

382. How this is to be done. — Let us discuss, briefly, five ways in which the bargaining position of unskilled and semi-skilled laborers may be increased.

(1) *Immigration legislation.* — An effective way of decreasing the supply of labor is to restrict by law the immigration to this country of unskilled workers. It is a well-known fact that masses of unskilled workmen from Europe have glutted the American labor market, and have forced down the wages of workingmen already here. As an economic proposition it is desirable to restrict immigration.

(2) *The attitude toward marriage.* — Much poverty and misery could be eliminated if individuals would postpone marriage until they feel certain that they will be able to support a family decently. Much in this general field can be accomplished by education. Young men must be taught that personal pride and a sense of common decency ought to oblige them to make sure that they are really ready to accept the tremendous responsibilities of marriage. The young man who marries and begins to rear a family is adding to the misery in the world if he is not prepared, both to feed and clothe his children properly, and to educate them sufficiently to enable them eventually to earn good wages.

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[1] This discussion of the question of increasing the bargaining power of laborers refers to unskilled and semi-skilled workmen. There is relatively little need of strengthening the bargaining position of highly skilled laborers, because of the relatively small supply of such laborers, and because of their strong development of the trade union.

(3) *Vocational education.* — Vocational education is of fundamental importance in decreasing the supply of unskilled labor. Its great service is that it trains individuals away from overcrowded and hence poorly-paid jobs, and toward those positions in which men are scarce, and hence highly paid. If vocational education makes an enterpriser out of a boy who would otherwise have been an unskilled laborer, the results are doubly beneficial. In the first place, such training has helped to diminish the supply of unskilled labor; in the second place, by increasing the supply of enterprisers, it has indirectly increased the demand for laborers. The demand for labor, of course, will depend somewhat upon the supply of enterprisers. The importance of trade schools, continuation schools, and other agencies of vocational education can hardly be exaggerated.

(4) *Employment bureaus.* — Employment bureaus and labor exchanges are essential to any program designed to eliminate poverty. Just as vocational education moves individuals from overcrowded to undercrowded occupations, so the employment bureau moves laborers from places where they are relatively little wanted, and hence are poorly paid, to places where they are relatively much wanted, and hence better paid. Many a man who would otherwise be out of work, or working for a low wage, has been helped to a good position through an employment agency. A coördinated system of national, state, and municipal employment bureaus is badly needed in this country.

(5) *The trade union.* — It is exceedingly important that the trade union movement be extended among those groups of the working population whose bargaining position is still very weak. A large proportion of our skilled and semi-skilled workmen is already organized into trade unions which are sufficiently strong to enable their members to bargain effectively with employers. But among the masses of our working population the trade union is either weak or absent, and this is certainly a factor in the low wages which these individuals receive. Large numbers of unskilled and semi-skilled laborers

would receive higher wages than at present if it were possible for them to be organized into strong unions.

383. Income must be used wisely if poverty is to disappear. — We have indicated the manner in which laborers might be enabled to receive higher wages than now. But high wages do not necessarily mean the abolition of poverty, indeed, investigations have proved that often poverty exists regardless of whether wages are high or low. A family of four, for example, might be well fed, comfortably clothed, and otherwise cared for in a normal manner, on, say, three dollars a day, provided that sum were utilized wisely. A second family of equal size, however, might spend six dollars a day so carelessly that the children would be denied such vital necessities as medical attention and elementary education, while neither parents nor children would be adequately provided with food or clothing. Those who champion the cause of the poorly-paid laborer often forget that shiftlessness, carelessness, and ignorance of proper methods of spending money are as important a cause of destitution as are low wages. Not until individuals use their income wisely and economically can poverty disappear.

384. Softening the touch of the wages system. — The wages system will endure. Despite its drawbacks, it is essential to effective production. Where numerous individuals are coöperating in production, the necessity of organization and coördination requires the individual to conform to the general plan.

But much can be done, and is being done, to lighten the touch of the wages system upon the laborer. As we shall see in Part IV of this book, the hours of labor are shortening, thus giving the worker more leisure time. More and more laws require ventilated work places and comfortable factories and mills. The hazards of industry are being cut down by laws requiring the guarding of machinery and the provision of other safeguards. Laws protecting the labor of women and children are increasingly common. Welfare work, piece work, scientific management, and profit sharing, such plans as these play a part in improving the wages system.

Labor must always remain more or less irksome, but a comparison of the lot of the workman fifty years ago and now will yield conclusive proof that the lot of the laborer is improving by leaps and bounds. Compared to his predecessor of a few decades ago, the American workman of to-day is better fed, better clothed, more abundantly provided with decencies and comforts, required to work shorter hours, paid a higher wage, and is otherwise more fortunately situated. Despite the pessimistic complaints of the critics of capitalism, the position of the worker is improving so rapidly as to be a standing cause of wonder.

385. Conclusion. — We saw, in this chapter, that many of the charges brought against capitalism are justified, and that our industrial system evidences many defects. The programs of reform discussed in the preceding chapters promise some help in eradicating these defects, but for the elimination of the most serious evils in American industry we must look beyond such programs as coöperation, single tax, and socialism.

We must reconcile ourselves to the fact that the reform of industry cannot be achieved by the application of a magical formula. The industrial system of a modern civilized nation is a vast and complicated affair, and its defects are both numerous and deep-lying. Let it be understood, therefore, that really to eliminate the basic defects of our industrial system, we must resort to a series of comprehensive reforms, rather than to a single scheme or theory.[1] Industry is so vast that we must be content to reform it piecemeal. For example, the conservation of our natural resources is itself so gigantic and complex a question that it must be considered as a problem in itself. Likewise, the problem of labor legislation, or of banking reform, or of the perfection of our taxation system, each of these is so special a question as to require separate study. It is for this reason that we have selected a number of important industrial problems for study in Part IV of the text. In the following chapters we shall see, in detail, how the defects of American industry are being reduced and eliminated. At the end of a survey of these problems we shall offer some final opinions as to the future of the great industrial mechanism by means of which we get our living.

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[1] For Professor Ely's conclusions as to the promise of social reform, see the *Readings*, pages 380–382.

Questions on the Text

1. What three-fold discussion is involved in this chapter?
2. What is meant by the statement that the waste of productive powers under capitalism " is probably less than it seems "?
3. Discuss legislation as a means of checking the waste of productive powers.
4. Discuss education as a means of checking the waste of productive powers.
5. How is the efficiency movement helping to reduce the wastes of manufacturing?
6. What is meant by the statement that " the duplication of numerous manufacturing plants is not necessarily an evil "?
7. Name some ways in which the danger of over-production is being diminished.
8. What are some of the ways in which the wastes of marketing can be diminished?
9. Why has the community a claim upon unearned wealth?
10. What are some of the methods by which the community can appropriate a share of unearned wealth?
11. What is our attitude toward wealth which has been fairly earned?
12. Why must the bargaining power of unskilled laborers be strengthened?
13. Name five ways in which this may be done.
14. What is the relation of poverty to the manner in which income is used?
15. What are some ways in which the touch of the wages system is being softened?
16. Explain the statement that " really to eliminate the basic defects of our industrial system we must resort to a series of comprehensive reforms, rather than to a single scheme or theory."

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXVI.)

1. What terms are used by those who would have us believe that there is in society no organization at all? (page 369.)
2. What is the disadvantage of looking at industry from too close a standpoint? (pages 369–370.)
3. If we were to suppose the inhabitants of Saturn in a position to examine the earth, would they say that our society is chaotic? Explain. (page 370.)
4. What is meant by the statement that private property has "rendered the fundamental conditions of social and industrial life safe and secure"? (page 372.)
5. What effect has private property had upon the production of wealth? (page 372.)
6. What effect has private property had upon capital? (page 373.)
7. Explain the statement that "the more things improve the louder become explanations about their badness." (page 374.)
8. What is the effect upon the standard of living of a widening of ambition? (page 375.)
9. Explain the statement that "scientific progress has made us optimistic regarding industry." (page 376.)
10. Is the abolition of all inequality of wealth possible? Explain. (page 377.)
11. Is the abolition of inequality of wealth desirable? Explain. (page 377.)
12. Into what error does the radical agitator often fall when he points out the evils of the present system? (page 378.)
13. How is poverty regarded by the agitator, the optimist, and the conservative? (pages 378–379.)
14. What have we a right to expect as to the industrial society of the future? (pages 381–382.)
15. What have we a right to expect as to the position of the working classes in that society? (page 382.)

Topics for Investigation and Report

1. Pure Food laws in your state.
2. The influence of the school in decreasing the demand for harmful goods.
3. The effects of tobacco using.
4. What employers in your community are doing to eliminate waste in their business.
5. Marketing reform in your section.

6. Extent of unearned wealth in this country.
7. The reform of land taxation in your state.
8. The inheritance and income taxes used in your state.
9. The causes of poverty.
10. Relation of immigration to wages.
11. The significance of vocational education to the laborer.
12. Extent to which unskilled laborers are organized in your state.
13. Measures undertaken by employers in your section to improve the wages system.
14. Write to the Bureau of Labor Statistics in your state for information relative to the status of public employment bureaus in your state.
15. Draw up a list of the economic problems of our country as you now see them.

Questions for Classroom Discussion

1. To what extent can we educate people not to make private gain their chief motive in life?
2. Who is to blame for the production of such frivolous goods as fantastic novelties, the manufacturers for offering them to the public, or the public for being willing to buy them?
3. Under what circumstances could manufacturers be persuaded to stop producing noxious goods, and turn to the manufacture of goods which are beneficial to consumers?
4. Which is more important as a measure of preventing the abuse of productive powers, legislation or education?
5. Many people advise that when times are hard everyone should talk optimistically and act as though times were good. Discuss.
6. An objection to the inheritance tax is that if men know a heavy tax is to decrease the amounts which they plan to leave to their heirs, they will lose interest in the accumulation of wealth. Discuss.
7. Some types of reformers have advised workers not to save money, so that necessity will repeatedly oblige them to demand higher and higher wages. Discuss.
8. The National Vocational Guidance Association recommends that young men choose a vocation " with service to the public as a primary consideration." Discuss.
9. By actual experiment, some employers have found that their workmen could actually turn out more product in a nine hour day than in a twelve hour day. How do you account for this?
10. Is the restriction of immigration unfair to European peoples who wish to make this country their home?

11. Why do you suppose that the trade union movement has as yet made little progress among the unskilled classes?
12. Discuss the statement that " you can eliminate the middleman, but not his function."
13. Discuss the statement that " most cases of the shortage of labor are really cases of the maldistribution of labor."
14. Discuss the statement that " when the world is ready for socialism, socialism will be unnecessary."
15. What suggestions would you make, in addition to those given in the text, for rendering the wages system more attractive to the worker?

PART IV

SELECTED INDUSTRIAL PROBLEMS

CHAPTER XXVII

CONSERVATION OF NATURAL RESOURCES

a. Growing scarcity of natural resources

386. A contrast. — In the first chapter of this book we noticed that the age-long working of natural power has supplied the area now occupied by the United States with an abundance of natural wealth. Forests, water power, minerals and other resources were found in almost a fabulous abundance by the Indian, and, later, by the European. Throughout the colonial period, and during the earlier part of our national life, natural resources were so abundant, and labor and capital were so scarce, that we used our natural wealth generously and even carelessly. With the settlement of the country, however, the extensive use of forests, minerals, and soil elements has rendered these natural resources relatively scarce. Whereas we were once almost indifferent to the use of natural resources because they were so abundant, of recent years the growing scarcity of these resources has been attracting our serious attention. Let us inquire into this.

387. Rapid decline of our forested area. — It has been estimated by experts that more than three-fourths of our original forest area has been culled, cut over, or burned, since colonial times. Wholesale logging methods have swept vast areas bare of valuable timber. It is said that in some parts of the country about 40 per cent of the entire volume of the logs is lost by the wasteful methods employed in lumber mills. For more than half a century, forest fires have annually destroyed many millions of dollars' worth of timber. Altogether, our timber supply has been diminishing three or four times as fast as we are replenishing it.

388. Some effects of deforestation. — The removal or destruction of standing timber is called deforestation. Deforestation may not only involve the waste of timber, but it may have an injurious effect upon inland waterways and upon agriculture.

By holding sod in place, forests furnish a sponge-like reservoir which absorbs rainfall during the rainy seasons, and then retains it sufficiently to insure that it will be paid out only gradually. When the forests are removed, either by cutting or by fires, this sod is destroyed. This means that streams formerly fed from forested areas by a steady process become dangerously swollen at certain seasons and greatly reduced in size at other times. One important effect of this alternation of freshets and floods with abnormally dry periods is a loss of steady and dependable water power.

Deforestation also has an injurious effect upon agriculture. When heavy rains wash valuable surface soil from the tops and sides of hills these denuded areas are rendered less valuable for grazing, because the grass becomes sparser and poorer in quality. At the same time effective cultivation in the valleys is retarded by the over-abundance of heavy topsoil which has been washed down from the tops and sides of hills. Agriculture also suffers from the fact that streams which would ordinarily furnish a steady supply of irrigation water are often either in a state of flood or practically dried up.

389. Exhaustion of the soil. — In many sections of the country, American farming methods are careless and wasteful. In the past the knowledge that the West offered virgin tracts of fertile land has often induced farmers in the more eastern parts of the country to exploit or " mine " the soil. In New England and throughout much of the eastern part of the country there are to be seen numerous farms which have either been abandoned because of the exhaustion of the soil, or which are now yielding smaller crops than formerly. Careless tillage and a failure to rotate crops have resulted in a heavy loss of nitrogen, potassium, phosphorus, and other essential soil elements.

390. Growing scarcity of minerals. — Heretofore we have used coal very lavishly. In some coal-mining sections, we are told, often as much coal has been wasted as has been mined. Mining corporations have often neglected low-grade coal deposits, and have abandoned mines without having removed all of the accessible high-grade coal. Imperfect combustion, both in dwellings and in industrial establishments, is said to waste more than a third of our coal, as well as creating a costly and injurious smoke nuisance.

Iron, too, has been used wastefully. The bog iron deposits of the Atlantic coast were used up before 1800, and as the result of our intense industrial development since 1850, the supply of high-grade ores is being speedily diminished. Petroleum and natural gas have been used lavishly, and, in some cases, have been deliberately wasted.

b. Some results of the growing scarcity of natural resources

391. Higher prices for many products. — The lavish use of natural resources which has characterized the American people since colonial times has been an important factor in the cost of living. In early days there was an abundance of resources and few people to use them; at present the supply of many of our resources is greatly diminished, and there is a much larger population seeking to use them. In the case of every natural resource, the supply is either limited, or is failing to increase as rapidly as are the demands upon it. The result is higher prices for coal, wood, iron, oil, gas, and similar commodities. It is at least partly due to the heavy drain upon our resources that the cost of building homes, heating them, feeding the population, and carrying on the varied activities of American industry is steadily increasing.

392. The monopoly of natural resources. — Closely connected with the increase in prices for natural products is the development of monopoly. Although it would seem obvious that our natural resources ought to be safeguarded for the benefit of the people as a whole, much of our natural wealth has been monopolized by private individuals and corporations.

Four fifths of our timber lands are privately owned, and of that four fifths about half is controlled by two hundred and fifty companies. Two thirds of the developed water power in this country is said to be controlled by a small group of power interests. Defective land laws, the lax administration of good laws, and extravagant land grants to railroads, have allowed private fortunes to be built up without a proportionate advantage to the public. Coal and petroleum deposits are controlled chiefly by a few corporations, while a large percentage of our copper and iron deposits is in private hands.

c. The conservation movement

393. The meaning of conservation. — Conservation does not mean to hoard a commodity, or necessarily to interfere with its extensive use. It means to utilize wisely and economically. Applied to the problem of our natural resources, conservation means that our natural wealth should be used so that both the present and future generations will reap a proper benefit from these forms of wealth. A leading student of the problem of conservation, Mr. Van Hise, once summed up the aims of conservation by saying that conservation seeks " the greatest good to the greatest number, and for the longest time."

394. Progress of the conservation movement. — After the middle of the nineteenth century the growing scarcity of many natural resources called attention to the need of conserving them. Between 1850 and 1900 there was an increasing amount of legislation encouraging the legitimate use of natural resources on the one hand, and repressing monopoly on the other. After the opening of the twentieth century popular interest in conservation increased. In 1908 President Roosevelt gave a great impetus to the movement by calling a conference of the governors of the various states for the purpose of considering this vital problem.[1] From that meeting dates a nation-wide and fairly definite conservation policy in this country.

Some of the effects of this changing attitude toward natural resources may now be noted.

395. Forests and water power. — In 1891 a Federal law provided for a system of national forest reservations. These reservations now include a substantial proportion of our forests, and are steadily extending their limits.[2] Since 1897 there has been a Bureau of Forestry which has performed invaluable services. Forest fires have been reduced, denuded areas have been reforested, forest cutting has been partially controlled, and a constructive program of forest culture developed. Forest reserves under the control of the individual states now total more than ten million acres. Of late years there has been an increasing use of dams and reservoirs for the storage of flood waters and the development of water power. This regulation of streams gives a uniform flow of water both for navigation and for irrigation purposes.

396. The conservation of land. — The desire to encourage the home-maker has long been the motive power behind our public land policy. Unfortunately, however, many of our earlier land laws did not prevent speculators and large corporations from fraudulently securing control of land intended for the *bona fide*, or genuine, settler. Within the last quarter of a century our land laws have been reorganized, with the double aim of doing justice to this type of settler, and of suppressing speculation and monopoly. As the result of Land Office investigations since 1900, many hundreds of thousands of acres have been returned to the public domain, on the grounds that they had been secured through fraud.

The Department of Agriculture has steadily extended its scope. Better methods of cultivation, lessons in soil chemistry, and experiments with new and special crops have helped to conserve the resources of the land. An elaborate system of experiment stations has been built up since 1887. The Weather Bureau in the Department of Agriculture saves millions of dollars' worth of property annually by sending out warnings of frost, storm, and flood.

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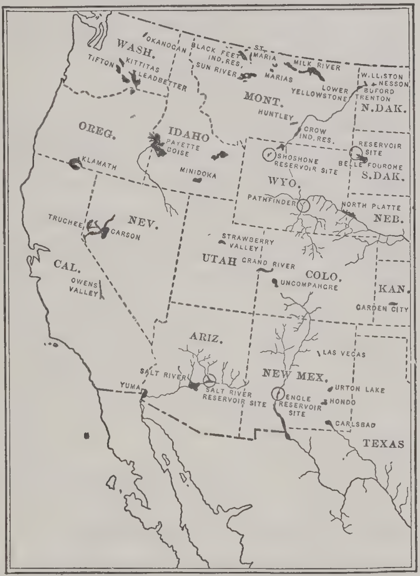
[1] For some of the results of this conference, see the *Readings*, pages 384–388.

[2] For a further discussion, see the *Readings*, pages 388–390.

Reclamation is increasingly important. New crops are being developed for the semi-arid areas of the West. Swamp lands in the East and South are being drained. Levees and breakwaters along the Mississippi are helping to prevent the loss of arable land through the river's changes in course.



Irrigation Centers in Western United States

The black portions show the land to be irrigated by the works which the Government has already built or is building.

Even more important, perhaps, is the irrigation movement. In 1902 the Reclamation Act provided for the construction of irrigation works in the arid and semi-arid states of the West. This work is to be carried on under the direction of the Secretary of the Interior. The plan provided by the Act of 1902 is self-supporting, the expense of the construction and improvement of the irrigation system being met almost entirely from the sale of public lands. The administration of the Reclamation Act has already resulted in millions of acres being brought under cultivation.[1]

397. The conservation of minerals. — Until 1873 coal lands were disposed of on practically the same terms as agricultural lands. But after that date laws restricting the purchase of coal lands began to be increasingly severe. In 1910 Congress withdrew from public sale nearly 10,000,000 acres of coal, petroleum, and phosphate lands. At the present time the discovery of coal on land secured by settlers for purely farming purposes entitles the government to dispose of the coal deposits under special conditions. There is also a tendency for the government to demand higher prices of individuals who wish to buy public coal lands.

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[1] For the arguments advanced in 1902 in support of this act, see the *Readings*, pages 392–394.

In some quarters there is a demand that all coal lands be leased rather than sold. The Federal government has not yielded to this demand, but several western states now lease rather than sell their coal lands. Under the lease system in these states, the state retains ownership, but allows private individuals a definite commission per ton of coal mined. The lease system is also advocated for lands containing iron, oil, and gas deposits, on the grounds that leasing safeguards the interests of the public and at the same time allows mining corporations a fair profit.[1]

d. The outlook for conservation

398. Reasons for optimism. — In spite of the appalling waste which has characterized our use of natural resources, the outlook is distinctly encouraging. Resources used up by past generations are gone forever, but at last we are making rapid strides in conserving what is left. Not only this, but we are perfecting plans for an increasing supply of those resources which can be replenished.

The admirable work of our Forest Service promises not only to reduce the present waste of wood products, but actually to increase the supply of timber. The Service deserves high praise both for its work in saving and replenishing forests, and for its wise handling of forest problems involving other resources. "By reasonable thrift," a report of the Forest

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[1] For President Roosevelt's opinion of the lease system, see the *Readings*, pages 390–392.

Service predicts, " we can produce a constant timber supply beyond our present need, and with it conserve the usefulness of our streams for irrigation, water supply, navigation, and power."

We now appear thoroughly awake not only to the necessity of safeguarding what is left of the public domain, but also to the necessity of increasing the productivity of inferior lands. There are still in this country about 300,000,000 acres of unappropriated and unreserved land. Three fourths of this area is at present fit only for grazing, but the rapid development of kaffir corn, durum wheat, Persian clover, and other crops suitable for dry soils, bids fair greatly to increase the productivity of this land.

The irreplaceable character of our mineral deposits, together with the tendency for large industrial interests to monopolize minerals, has greatly stimulated the conservation of these resources. A valuable step forward has been the reclassification of public lands so as to permit special treatment of lands containing mineral deposits. Coal is still used lavishly, but nine tenths of our original deposits are still in existence. Furthermore, water power, electricity, and other substitutes for coal are being developed. Our high-grade ores will be exhausted in a few decades, but an iron shortage may be prevented by more careful mining, the use of low-grade ores, and the use of substitutes for iron.

399. Different resources call for different treatment. — A wise conservation policy will take note of the fact that different resources call for different types of treatment. Deposits of coal, petroleum, and gas are limited in extent, and are practically irreplaceable. These should be taken from the earth and utilized as economically as possible. The same is true of the metallic minerals, such as iron and copper, though here the use of substitutes is of greater importance than in the case of non-metallic minerals.

Water power can best be conserved by the wise development of water power sites, and by the careful utilization of streams.

Forests may be renewed, but slowly. Their conservation requires the prevention of fires, the reduction of waste in cutting and milling, and scientific reforestation.

Soil elements may also be renewed, though slowly and with difficulty. Reforestation prevents erosion and thus conserves soil fertility. Systems of crop rotation designed to retain nitrogen, potassium, and phosphorus are valuable.

400. Some conservation needs. — The above discussion indicates some of our conservation needs. It is believed by most students of conservation that the Federal forest holdings should be extended and consolidated. There is need for more stringent fire regulations, especially in the case of privately owned forests. In order to reforest the denuded areas and in order to grow timber scientifically, a carefully worked out system of forest culture might well be adopted.

There is urgent need of a systematic development of our inland waterways. The construction of more dams and reservoirs, the dredging of rivers and harbors, the coördination of canals and inland waterways, and the improvement of the Mississippi-Great Lakes system, all these would be helpful measures.

Irrigation and other reclamation projects, including the drainage of swamp lands, should be systematically developed. American farming methods ought still further to be improved.

We are in need of laws penalizing wasteful methods of mining and prohibiting uneconomical methods of combustion. Probably we ought to extend the system of leasing rather than selling mineral lands.

A last vital need in conservation is for coöperation between state and Federal authorities, and between private individuals and government agencies. This is of the greatest importance. Where rivers course through several states, and where forest fires in one section threaten adjacent forest areas, coöperation is imperative. The Governors' Conference of 1908 stimulated coöperation between the state and the Federal governments, and since 1909 the National Conservation Association has been a means of coördinating the work of all persons and agencies interested in conservation. There is still, however, little coöperation between state and Federal governments on the one hand, and private owners on the other. It is a matter of special regret that although four fifths of our forests are privately owned, both fire prevention and scientific forestry are little developed on private estates.

401. The question of administration. — Although it is conceded on all sides that our natural resources ought to be utilized economically, there is much discussion as to whether the states or the Federal government ought to dominate the conservation movement.

Those favoring the extension of Federal control over conservation point out that forest control, irrigation, conservation of water power, and similar projects are distinctly interstate in character, and are thus properly a Federal function. Federal administration is said to be necessary in order to insure fair treatment of different localities. Finally, it is maintained, the states have either neglected the question of conservation, or have handled it in their own interests, rather than with regard to the national welfare.

A strong party maintains, on the other hand, that conservation is primarily a state function. The movement is said to be too large for the Federal government to handle. It is contended that there is no specific warrant in the Constitution for the Federal control of conservation. It is also claimed that in the past Federal administration of natural resources has been accompanied by waste and inefficiency. Conservation is said to be a local question, best administered by those most interested in the problem, and who, by reason of their closeness to it, are most familiar with it.

The problem of administration is a difficult one. In a number of cases the claims for and against Federal control are obviously sound. But from the standpoint of the public the problem of administration ought to be decided on the basis of what is best under particular circumstances. Some phases of conservation are probably best looked after by the states, others by the Federal government, still others by the state and Federal governments acting jointly. The problem of conflicting authority ought somehow to be solved. The conservation of our natural resources is too vital a matter to be hampered by the question of method or means.

Questions on the Text

1. Comment upon the rapid decline in our forested area.
2. What are some of the effects of deforestation?
3. What is the relation of the growing scarcity of natural resources to the cost of living?
4. What part has monopoly played in the history of our natural resources?
5. What is meant by " conservation "?
6. Describe the origin and early development of the conservation movement.
7. What is the importance of the year 1908 in the conservation movement?
8. What is being done to conserve forests and water power?
9. How is land being conserved?
10. What is the purpose of the Reclamation Act of 1902?
11. What steps have recently been taken to safeguard our mineral deposits?
12. Why may the present outlook for conservation be said to be optimistic?
13. Explain the statement that " different resources call for different treatment."
14. Outline our conservation needs.
15. Give the chief arguments for and against the Federal administration of conservation.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXVII.)

1. What were President Roosevelt's reasons for calling the Conference of Governors in 1908? (page 384.)
2. What was the significance of our natural resources in Washington's day? (pages 384–385.)
3. What did the committee on resolutions report to this conference with respect to the need for conservation? (page 386.)
4. What measures were recommended by this committee? (page 387.)
5. In 1906 the Senate committee in charge of the bill providing for the purchase of vast areas in the Appalachian and White Mountains for Federal forest reservations said that " the creation

of these reserves is a wise public policy." Why? (Pages 388–389.)

6. Why was the acquisition of these lands also said to be a good business policy? (page 389.)
7. What did President Roosevelt say, in his message to Congress in February, 1907, concerning the leasing of mineral lands? (page 391.)
8. What can be said as to the extent of the leasing system in foreign countries at the time that President Roosevelt delivered this message? (page 391.)
9. Describe the nature of the so-called arid region in Western United States. (page 393.)
10. What is the nature of the irrigation problem in this section of the country? (page 394.)
11. What is the importance of the legal basis of conservation? (pages 395–396.)
12. Summarize the opinion delivered by the Maine Supreme Court in 1907 on the subject of conservation. (pages 395–396.)

Topics for Investigation and Report

1. Interview an old resident with regard to the relative abundance of forests, cheap land, and wild game in your locality a half century ago.
2. Extent and utilization of forests in your state.
3. Water power sites in your state.
4. Mineral deposits in your state.
5. Draw up a comprehensive plan for the prevention of forest fires.
6. The life and work of Gifford Pinchot.
7. Extent of unused land in your state. What is being done to make this land more productive?
8. The leasing of mineral lands.
9. Irrigation projects under the Reclamation Act of 1902.
10. Dry farming in Western United States.
11. Scientific farming in your section of the country.
12. The improvement of inland waterways in your section of the country.
13. If possible, visit a lumber camp or a mine, and observe the methods of work there.
14. Draw up a plan of reforestation which would include constructive measures for the conservation of land and water power as well as forests.
15. Outline a plan for a local conservation club, to be affiliated with

the National Conservation Association. (If desired, write to the Association, Washington, D. C., for free descriptive literature.)

Questions for Classroom Discussion

1. Is it just to condemn the early settler for his lavish use of natural resources?
2. To what extent is the present waste of timber unavoidable?
3. What is the best plan for preventing forest fires?
4. What is meant by "scientific forestry"?
5. Is the adoption of a program of scientific forest culture at this time economically justified?
6. Do you know of any causes for the high cost of coal, timber, etc., besides the growing scarcity of natural resources and the development of monopoly with respect to these products?
7. Discuss the relation of the terms "conservation" and "thrift."
8. Can the conservation of natural resources be taken out of politics?
9. Should all mineral lands be leased rather than sold?
10. Electricity as a substitute for coal.
11. To what extent does your state government regulate privately owned forests within the state?
12. Is the extension of governmental control over privately-owned natural resources an "interference" with private rights?
13. What types of conservation are most important in the Southwest? In the Southeast? In the Northwest?
14. Should the East and South object to Federal appropriations for the support of reclamation works designed entirely to aid the development of the semi-arid states of the Far West?
15. Discuss in detail the circumstances under which neighboring states ought to coöperate with each other in the conservation of natural resources.

CHAPTER XXVIII

PUBLIC REGULATION OF MONOPOLIES

a. Nature and significance of monopoly

402. Meaning of the term "monopoly." — Under openly competitive conditions, the free play of supply and demand between a number of sellers on the one hand, and a number of buyers on the other hand, fixes the price of a commodity. As we saw in an earlier part of this book, the fixing of prices by competition acts as an automatic safeguard to the interests of the consumer. If one seller attempts to exact an unduly high price for his goods, purchasers will resort to other sellers, who will be willing to sell at a lower price for the sake of getting trade away from their competitors.

But suppose that the supply of a good, say wheat, is not in the hands of a number of rival sellers, but is under the control of a unified group of persons. These persons may by mutual agreement refuse to compete with one another, and may agree as to the price which they will attempt to exact from buyers. To the extent that such a unified group is able to dictate the price for which wheat shall sell, a monopoly exists. Complete and sustained control of the supply of a commodity is rare, but modern business offers many instances of enterprises which are more or less monopolistic in character.

403. Why monopoly is a menace. — The essential danger of monopoly is that those who have secured control of the available supply of a commodity will use that control to benefit themselves at the expense of the public. The great motive in business is, of course, private profit. Usually the public is protected against greedy sellers by the tendency of rival sellers to under-bid one another for the sake of securing trade. But if competition is supplanted by monopoly, this safeguard is removed, and the monopolists are more or less free to dictate the prices which the public shall pay. It may be that a group of combining producers can afford to lower the price of the product. But if they are practically in control of the available supply, they will not lower the price unless it serves their interests to do so. It is more likely that they will take advantage of their monopoly to raise the price. If their product is essential to the public, as for example, gas, milk, or bread, this increased price may seriously menace the health and lives of the consuming public.

404. Types of monopoly. — Monopolies are classified in a large number of ways, depending upon the viewpoint and purpose of the student of the problem. But probably the most fundamental classification of monopolies is on the basis of their relation to the competitive system. If this statement is accepted, a simple and fundamental classification of monopolies is to divide them into natural monopolies and unnatural monopolies.

A natural monopoly may exist, where, by the very nature of the business, competition is either impossible or is socially undesirable. The natural monopoly is a genuine exception to the competitive system, and must be treated as such. Examples of this type of monopoly are gas and water works, street railways, steam railways, and similar industries. These will be discussed in the next chapter.

An unnatural monopoly, on the other hand, is one which is not by its very nature an exception to the competitive system. The unnatural monopoly exists, not because the essential character of the business renders it unfit for the competitive system, but because competition has been artificially suppressed. In such cases, it may be possible to enforce competition. The most common example of an unnatural monopoly is that form of large-scale combination which is popularly known as the trust.

b. The trust movement

405. Origin of the trust. — After the Civil War, the rivalry in many industries was very great. In the effort to survive many businesses engaged in what may be called "cutthroat" competition, that is to say, they resorted to reckless and even criminal methods of benefiting themselves at their competitors' expense. As the result of such practices as price-cutting in the effort to ruin their competitors, there was in many lines of business a great reduction in profits. For the purpose of avoiding these wastes of competition, and for the purpose of securing the advantages of monopoly, many previously competing businesses combined.[1] This means that a number of rival producers of a given commodity agreed to work in harmony with one another, instead of competing with one another.

The first definite trust in this country was formed in 1882, when John D. Rockefeller was largely instrumental in the organization of the Standard Oil Company.[2] The plan drawn up by Mr. Rockefeller and his associates provided that the owners of a number of oil refineries should place their stock in the hands of a board of trustees.[3] In exchange for this stock, the owners received trust certificates on which they were paid dividends. Having full control of the stock of the combining businesses, the small group of trustees were thenceforth enabled to manage those businesses as a unit. In this way competition was suppressed, control over the supply of a greater part of the oil business was unified, and the way was opened to monopoly profits.

406. Present meaning of the term "trust." — The plan initiated by Mr. Rockefeller and his associates was so successful that other industries adopted it. After 1890 the original trust device was forbidden by law, and the *trust proper* declined in importance. But there continued to be a large number of industrial combinations which, under slightly different forms, have secured all of the advantages of the original trust.

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[1] For a more detailed discussion of the causes of the trust movement, see the *Readings*, pages 398–400.

[2] The germ of the trust device as utilized by the Standard Oil Company dates back to 1879.

[3] For the terms of this agreement, see the *Readings*, pages 400–402.

In some cases previously competing corporations have actually amalgamated into one great concern. In still other cases, combining concerns have secured the advantages of monopoly by forming a *holding company.* A holding company may take various forms, but essentially it is a corporation which is created outright for the express purpose of " holding " or controlling stock in several other corporations. This the holding company may do by buying a sufficient amount of the stock of the combining concerns to insure unity of management. The original corporations retain their existence and nominally continue to do business as before, but entire control of these corporations is in the hands of the board of directors of the holding company.

Since the holding company and other devices secure the chief advantages of the original trust device, the word " trust " is now used to designate any closely knit combination, or even any single corporation, which has monopolistic advantages. Whether or not a business constitutes a trust will depend more upon its actual effect upon the market than upon its form of organization.

407. Growth of the trust movement. — The trust movement developed rapidly after 1882. There were large and important combinations in the oil, tin, sugar, steel, tobacco, paper, and other industries. By 1898 there were in existence some eighty trusts, with a total capitalization of about $1,000,000,000. At the beginning of the year 1904 the number of trusts exceeded three hundred, while their combined capital totalled more than $5,000,000,000. The largest single trust was the United States Steel Corporation, which was capitalized at almost a billion and a half dollars. At the beginning of the year 1911, in which year the Supreme Court of the United States ordered two important trusts to dissolve, the combined capital of the trusts was probably in excess of $6,000,000,000.

408. Abuse of power by the trusts. — Trusts have often abused the great power which they have secured through combination. They have often used their wealth to corrupt legislatures in the effort to prevent the enactment of laws which would restrict their monopoly. They have attempted to influence the courts, in the effort to secure decisions favorable to their interests. The corruption of railway corporations and of political parties has been partly due to the evil influence of the trusts. Trusts have often crushed out independent concerns that endeavored to compete with them. This has been accomplished partly by inducing railways to discriminate against independent concerns and in favor of the trusts, partly by cutting prices in competitive markets until independent concerns were forced out of business, and partly by the use of bribes, threats, and other grossly unfair methods.[1] After competition had been suppressed, the trusts took advantage of their monopoly to raise prices on their products, or otherwise to further their own interests.

c. Anti-trust legislation

409. State legislation. — The abuse of power by the trusts early led to complaints against them, and to the demand for legislation restricting their activities.

During the eighties a number of states attempted to control the trust movement. But the Federal government has exclusive jurisdiction over interstate commerce, and for this reason the action of the several states was limited to the control of trust business lying entirely within their respective borders. With the development of transportation and the expansion of the market, more and more business has become interstate, rather than intrastate, in character, and as a consequence the states found themselves increasingly unable to control trust business. The various states continue to exercise some control over industrial combinations, though their control in this regard is limited by their inability to regulate interstate commerce.

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[1] See, for example, the charges against the National Cash Register Company, as quoted in the *Readings*, pages 402–404.

410. The Sherman Anti-trust Act of 1890. — The fact that an increasing proportion of trust business was interstate in character stimulated interest in Federal anti-trust legislation. As a result of a growing agitation the Sherman Anti-trust Act was passed by Congress in 1890. This Act declared illegal "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations." It also provided punishment for "every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several states, or with foreign nations."[1]

411. Failure of the Sherman Act. — For more than twenty years after its passage, the Sherman Act did little to curb the growth of the trusts; indeed, the most marked tendency toward trust formation occurred after 1890. Numerous suits were brought under the Act, but the hostile attitude of the courts rendered difficult the administration of the law. The courts held that the restraint of trade was illegal only if "unreasonable," and few juries could be found that could agree upon the difference between a "reasonable" and an "unreasonable" restraint of trade. Lastly, combinations which had been organized under the original trust plan were not disheartened by court decrees ordering them to dissolve, but speedily reorganized under the device of the holding company or similar plan. By this means they conformed to the letter of the law, but continued the practices which the law had been designed to suppress.

412. Further legislation in 1914. — Finally in 1911 the government succeeded in dissolving the Standard Oil Company and the American Tobacco Company, two of the largest trusts in the country.[1] This success encouraged the Department of Justice to institute other suits, and stimulated such general interest in the trust problem that in 1914 Congress passed two new anti-trust acts. These were the Clayton Act and the Federal Trade Commission Act. The general effect of these laws was to strengthen anti-trust legislation by correcting some of the fundamental defects of the Sherman Act, and by still further extending the power of the Federal government over monopolistic combinations.

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[1] Practically the full text of this important law is given in the *Readings*, pages 404–406.

413. The Clayton Act of 1914. — The Clayton Act forbids price discriminations between different purchasers in different sections of the country, when the effect of such discriminations would be to eliminate competition or to create a monopoly. The Act also contains a clause which declares illegal the sale or lease of goods with the understanding that the purchaser or lessee shall not buy or lease similar goods from others, whenever the effect of such restrictions would be specifically to lessen competition or to create a monopoly. Somewhat complicated limitations are imposed upon the interlocking directorate, by which is meant the practice of the same individual being on the board of directors of different corporations.[2] The Act likewise forbids the acquisition by one corporation of stock in another corporation when the effect may be " to substantially lessen competition " between such corporations, or " to tend to create a monopoly."

414. The Federal Trade Commission Act of 1914. — The second of the two acts of 1914 created a Federal Trade Commission of five members, appointed by the President. The Commission has the power to investigate corporations engaged in interstate or foreign commerce, except common carriers and banks. The Commission has the power to demand access to the books, records, and papers of these corporations, as well as to summon witnesses, and to require annual or special reports of such corporations. At the request of the Attorney-General, the Commission must investigate and report upon any corporation alleged to be violating the anti-trust laws. The most important power of the Commission is undoubtedly that of issuing orders restraining the use of "unfair methods of competition in commerce." The Commission is authorized to investigate cases of unfair competition and to issue orders requiring its discontinuance. This clause aims at prevention rather than at punishment, and if its power is wisely used it may check monopoly in the early stages. Most authorities claim that in this regard the work of the Commission has already proved definitely helpful.[1]

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[1] For the decision in the American Tobacco Company case, see the *Readings*, pages 406–408.

[2] The danger of the interlocking directorate, of course, is that individuals who are directors in two or more competing corporations may attempt to suppress competition between these corporations. This may lead to monopoly.

d. The trust problem of the future

415. Not all combinations are monopolistic. — We commonly associate the term trust with a giant business which controls a sufficient amount of a certain product to enable it to dictate prices. But though great size may be one element of trust development, large-scale combination is not in itself a thing to be condemned. Combination is a widespread development in American industry, and it may or may not result in monopolistic abuses. The law ought to recognize the fact that many large-scale combinations have in them no element of monopoly. Perhaps they do not control a sufficient amount of the product to enable them to dictate prices. Perhaps they have the capacity to exercise a control over prices, but do not take undue advantage of the consuming public. In either case, such combinations should be exempted from anti-trust prosecution. Anti-trust legislation ought not to work a hardship upon combinations which have consistently observed the rules of fair play in competitive business.

416. Alleged economies of the trust. — A number of people have defended the trust on the grounds that it permits numerous economies which cannot be effected in the absence of combination. These alleged economies are of two types:

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[1] For an extended extract from the Federal Trade Commission Act, see the *Readings*, pages 408–410.

In the first place, it is claimed that the trust reaps certain of the advantages of large-scale *production*. For instance it is said that the trust can buy raw materials more cheaply than can a number of smaller competing concerns, because it may buy in very large quantities. It is also said that the trust can use its plant more effectively, make a more economical use of by-products, and organize superintendence on a more efficient basis, than can competing concerns.

In the second place, it is said that the trust has certain advantages in *marketing* which are not realized by numerous competing concerns. For instance, a monopoly can avoid some of the expenditures which are incurred by competing firms in maintaining advertising specialists and traveling salesmen. It is also said that the trust can save in cross-freights, that is, it can reduce its freight charges by sending each order to be filled at the plant that is nearest the consumer.

Most authorities are very dubious about the validity of these so-called economies of the trust. With respect to the economies of large-scale production, it is pointed out, the trust has little or no advantage over the large independent concern. Experience shows that in manufacturing there are limits beyond which an increase in the size of the establishment will probably fail to reduce the cost of production. This point is reached long before a single large concern enters the trust stage. It is admitted that the trust has some marketing advantages over competing concerns, but these are somewhat balanced by the fact that the trust has expenses which the ordinary business does not have. The trust, for example, may have to expend a great deal of money in evading the law, and in suppressing competition. The failure of many attempts to establish and maintain trusts, as well as the persistence of independent concerns which compete with trusts, would indicate that the economies of the trust are less than is sometimes claimed.

417. The outlook. — Since 1910, and especially since the passage of the two acts of 1914, the trust situation has improved materially. The vague and wholly inadequate powers of the old Sherman Anti-trust Act have been clarified and supplemented by the more specific provisions of the Clayton and Federal Trade Commission Acts. Fairly adequate machinery for the investigation and prosecution of trusts is now provided. The present laws cover not only combinations making use of the old trustee device, but also combinations using other methods of exercising monopoly control. The Federal Trade Commission Act provides for publicity, so that public opinion may have a chance to help enforce the principle of fair play and open competition in business. The trust problem in the United States is not yet solved, but the careful regulation which we are now exercising over this type of organization justifies the belief that the trust evil will become less important as time goes on.

Questions on the Text

1. Define the term "monopoly."
2. Why is monopoly a menace?
3. Distinguish between a natural and an unnatural monopoly. Give an example of each.
4. Describe the origin of the trust movement in the United States.
5. Describe the origin of the first trust in this country.
6. Explain clearly the present meaning of the term "trust."
7. Discuss the growth of the trust movement.
8. In what ways have the trusts abused their power?
9. Why was early state legislation on the subject of the trusts largely a failure?
10. Give some of the provisions of the Sherman Anti-trust Act of 1890.
11. Why was the Sherman Act long a failure?
12. Give some of the chief provisions of the Clayton Act.
13. Give some of the chief provisions of the Federal Trade Commission Act.
14. What is meant by saying that "not all combinations are monopolistic"?
15. Discuss the alleged economies of the trust.
16. What is the outlook with respect to the trust problem of the future?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXVIII.)

1. What forces were fundamentally responsible for the modern trust movement? (page 398.)
2. What is the relation of railroad favors and tariff duties to the development of the trust? (page 399.)
3. Describe the manner in which the Standard Oil Company made use of the trust device in 1882. (pages 400–401.)
4. What was the extent of the control exercised by the nine trustees provided for by this agreement? (page 402.)
5. Outline the charges against the National Cash Register Company with respect to unfair practices. (pages 402–404.)
6. What did the Sherman Anti-trust Act say concerning combinations in restraint of trade? (pages 404–405.)
7. What did the Act say concerning monopoly? (page 405.)
8. What was the geographical scope of the Act? (page 405.)
9. What was the relation of the courts to the execution of the Act? (pages 405–406.)
10. What, in brief, was the decision of the Supreme Court in the American Tobacco Company case? (pages 406–408.)
11. Describe the procedure before the Federal Trade Commission. (page 409.)
12. Outline the powers of investigation which are granted to the Commission by the Act of 1914. (pages 409–410.)

Topics for Investigation and Report

1. Origin of the term "monopoly."
2. Relation of the tariff to monopoly.
3. Competition in the period following the Civil War.
4. Development of the trust previous to 1911.
5. The nature of the "holding company."
6. Nature of the "interlocking directorate."
7. The so-called "economies of the trust."
8. Effect of trust development upon prices.
9. Reasons for the failure of the Sherman Act.
10. Trust development in your section of the country.
11. History of anti-trust legislation in your state.
12. Outline the present laws of your state relative to monopolies.
13. Trust regulation in foreign countries.
14. The history of some one trust, as, for example, the American Sugar Refining Company, the United States Steel Corporation. the American Tobacco Company, or the International Harvester Company.

Questions for Classroom Discussion

1. Relation of the expansion of the market to trust development.
2. Why did not the trust develop in the farming industry?
3. What is the relation between railroad discriminations and trust development?
4. What is " stock watering " ?
5. Why did the trust movement not develop, in, say, the earlier part of the nineteenth century?
6. Discuss the statement that " the monopolist of course can charge whatever price he likes."
7. Does monopoly always result in a higher price being asked for the monopolized article?
8. What is a reasonable as opposed to an unreasonable restraint of trade?
9. Is trust development encouraged by a period of prosperity, or by a period of depression?
10. To what extent is the mere size of an industrial organization an indication of monopoly?
11. How is it possible to tell when combination has resulted in monopoly?
12. What is the difference between a " corner " and a " monopoly " ?
13. Is monopoly in American industry increasing?
14. What changes in our trust policy would you recommend?

CHAPTER XXIX

PUBLIC OWNERSHIP OF MONOPOLIES

418. The principle of decreasing cost. — Such public utilities as gas and electric light works, waterworks, telephone and telegraph plants, and electric and steam railways, are known as natural monopolies.

These industries are by their very nature unsuited to the competitive system. This is chiefly because they operate under the principle of decreasing cost, that is to say, the greater the volume of business handled by a single plant, the less the cost of production per unit.

In order to serve 100,000 customers with gas, for example, it may be necessary to make an initial outlay of $90,000 in plant and supplies. With this identical plant, however, the gas works could really manufacture gas sufficient to serve more than 100,000 customers. If, later, the city grows and the number of customers using gas doubles, the gas works, already having its basic plant, will not have to expend another $90,000, but only, say, an additional $30,000.

The same principle applies to other public utilities. In the case of the steam railroad, for example, the cost per unit of product or service declines with an increase in the number of units furnished. A railroad must maintain its roadbed, depots, and terminals whether one or a hundred trains are run, and whether freight or passenger cars are empty or full. Many of the railroad's operating expenses also go on regardless of the volume of business. Thus the cost of handling units of traffic declines as the volume of that traffic increases.

419. Significance of this principle. — The principle of decreasing cost has the double effect of discouraging competition and of encouraging combination. On the one hand, the cost of duplicating a set of water mains, or a network of street car tracks, is so great as to render competition costly and hence undesirable, both from the standpoint of the utility, and from the standpoint of the public.

On the other hand, a street or a neighborhood can be served with water or gas more cheaply by a single plant than by several competing plants. For this reason competing plants tend to combine in order to avoid the wastes of competition, and in order to secure the economies resulting from the operation of the principle of decreasing cost.

This natural tendency toward monopoly, together with the social importance of public utilities,[1] has given rise to a demand that businesses of this type be publicly owned. The problem of public ownership may be considered under two heads: first, the municipal ownership of local utilities; and, second, the national ownership of steam railroads.

a. Municipal ownership

420. Regulation of local utilities. — In many American cities it was formerly the custom of the city council to confer valuable privileges upon public service corporations on terms that did not adequately safeguard the public interest. In making such grants, called *franchises*, city councils often permitted private corporations the free use of the streets and other public property for long periods of time, or even in perpetuity.

The abuses growing out of the careless use of the franchise-granting power led to a more adequate supervision of franchises to public service corporations. In most cities, franchises are no longer perpetual, but are limited to a definite and rather short period, say fifty years. In many cities there are now public service commissions that have the power to regulate privately owned utilities. The chief aim of such commissions is to keep informed as to the condition of the utilities, and to fix rates and charges which the commission considers fair and reasonable.

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[1] For a discussion of the public aspects of public utilities, see the *Readings*, pages 412–414.

421. Arguments for municipal ownership. — Those favoring municipal ownership, as opposed to regulation, declare that the conditions affecting rates change so rapidly that no public service commission can fix rates fairly or promptly. Public ownership would save the cost of regulation, in many cases a considerable item. It is maintained that regulation is inevitably a failure, and that in view of the social importance of public utilities, ownership is a logical and necessary step.

Important social gains are claimed for municipal ownership. It is said that where the plan has been tried, ownership promotes civic interest and pride, and hence enlists a higher type of public official. If all utilities were municipally owned, state legislatures and city councils would no longer be subjected to the danger of bribery and other forms of corruption by private corporations seeking franchises. When utilities are owned by the municipality, it is claimed, service and social welfare rather than profits become the ideal. The public plant could afford to offer lower rates, because it would not be under the necessity of earning high profits. Finally, service could be extended into outlying or sparsely settled districts which are now neglected by privately owned companies because of the high expense and small profits that would result from such extension.

422. Arguments against municipal ownership. — Other students of the problem believe that public regulation of utilities is preferable to municipal ownership. Those holding this view maintain that on the whole regulation has proved satisfactory, and that ownership is therefore unnecessary.

Rather than improving the public service by enlisting a higher type of public official, it is maintained, municipal ownership would increase political corruption by enlarging the number of positions which would become the spoils of the political party in power. The periodic political changes resulting from frequent elections in cities would demoralize the administration of the utilities. Under our present system of government, municipal ownership means a lack of centralized control, a factor which would lessen administrative responsibility and encourage inefficiency.

The opponents of municipal ownership also contend that the inefficiency resulting from this form of control would increase the cost of management. This increased cost would in turn necessitate higher rates. Moreover, municipal ownership might increase enormously the indebtedness of the municipality, since either privately owned plants would have to be purchased, or new plants would have to be erected at public expense.

423. Extent of municipal ownership. — Some cities have tried municipal ownership and have abandoned the scheme as unworkable. In some instances this failure has been due to the inherent difficulties of the case, in other instances the inefficiency of the city administration has prevented success. In still other cities ownership of various utilities has proved markedly successful.

Most American cities now own their own waterworks, and about one third of them own their own gas or electric light plants. A few cities own either a part or the whole of their street railways. Municipal ownership of public utilities is still in its infancy, but, in some parts of the country at least, the movement is growing.[1]

424. The conditions of municipal ownership. — Past experience indicates several mistakes to be avoided in any future consideration of the problem of municipal ownership.

The terms upon which the city purchases a utility ought not to be so severe as to discourage the future development of new utilities by private enterprise.

Public ownership is practicable only when the utility has passed the experimental stage, for government agencies cannot effectively carry on the experiments, nor assume the risks, so essential to the development of new enterprises.

Any discussion of public ownership ought to include a consideration of social and political factors, as well as matters which are strictly economic. It is imperative that honest and effective government be assured in a municipality which aspires to own and manage local utilities. Civil service reform is essential if municipally owned utilities are to be managed in the public interest.

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[1] For a more detailed account of the extent of municipal ownership, see the *Readings*, pages 414–415.

The question of municipal ownership should be decided purely on the basis of local conditions and for particular utilities. The successful ownership of street railways in one city does not necessarily mean that a second city may be equally successful in operating this utility. Nor does the successful administration of a gas works by one city necessarily mean that the same city could effectively administer its street railways.[1]

b. National ownership of railroads

425. Evils attending railroad development. — Since many of the expenses of the railroad go on regardless of the amount of traffic carried, railroads can afford to accept extra traffic at a relatively low rate. Competition between railroads has tended to be very severe, because each road is constantly searching for extra business. In the struggle for business, railroads once habitually offered low rates on competitive roads or lines, and then made up for this relatively unprofitable practice by charging high rates on non-competitive roads. The desire for extra business, together with the pressure exerted by trusts and other large shippers, encouraged railroads to make rates which discriminated between products, between localities, and even between individuals. The ruinous character of competition often led to monopolistic combinations which proceeded to charge the general public exorbitant rates, but which rendered poor service.

426. Early state legislation. — During the early stages of railroad development, the railroads were generally regarded as public benefactors for the reason that they aided materially in the settlement of the West. But after about 1870 the railroads began to be accused of abusing their monopoly.[1] A greater degree of legal control over the roads was demanded.

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[1] For a further discussion of the conditions of municipal ownership, see the *Readings*, pages 416–417.

The first attempts at the regulation of railroad corporations were made by several of the states. For fifteen years various commonwealths tried to control the railroads through state railway commissions armed with extensive powers. These commissions eliminated some of the more glaring abuses of railroad combination, but for several reasons state regulation was relatively ineffective.

The states had, of course, no authority over interstate business, and railroad business was increasingly interstate in character. State laws regulating railroads were often declared unconstitutional by the courts. Lastly, powerful railroad corporations often succeeded in bribing state legislatures to refrain from taking action against them. Due to these influences, state regulation was generally conceded to be either a failure or inadequate.

427. Federal legislation. — The failure of state laws effectively to control the railroads led to the enactment by Congress of the Interstate Commerce Act of 1887. This Federal act created an Interstate Commerce Commission of seven members, appointed by the President, and charged with the enforcement of the Act. The Act also prohibited discriminations and forbade unjust and unreasonable rates. It required that railroads should make rates public, and that they should not change rates without due notice. Pooling was forbidden, that is to say, railroads apparently competing with one another were no longer to merge or pool their combined business with the understanding that each was to get a previously determined share of the joint profits or joint traffic. The objection to pooling was that it suppressed competition and encouraged monopoly.

In the years that followed, however, the Interstate Commerce Act checked railroad abuses very little. The machinery of the Act was so defective as to render difficult the successful prosecution of offenders. Railroad lobbies exerted an evil influence upon government officials who were attempting to enforce the Act. The administration of the law was also markedly impeded by the fact that the courts tended to interpret the Act of 1887 in such a way as to limit the powers of the Commission.

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[1] For a detailed list of the charges brought against the railroads in the eighties, see the *Readings*, pages 417–419.

To a considerable extent discriminations and unnecessarily high rates continued until after the opening of the twentieth century. Then in 1903 the Elkins Act revived some of the waning powers of the Commission. Three years later (1906) the Hepburn Law increased the membership of the Commission, improved its machinery, and extended and reinforced its control over rates. In 1910 the Mann-Elkins Act strengthened the position of the Commission in several particulars.

In spite of this additional legislation, however, the rather sorry record of railroad regulation up to the time of the Great War repeatedly raised the question of national ownership of railroads.

428. Arguments in favor of national ownership of railroads. — The arguments in favor of national ownership of railroads are similar to those advanced in behalf of the municipal ownership of local utilities.

The failure of regulation, coupled with the social importance of the railroads, is said to render ownership imperative. Government ownership of railroads is said to have succeeded in several of the countries of Europe, notably in Prussia.

It is believed by many that government ownership would attract a high grade of public official. It is also thought that with the change to public ownership lobbying and political corruption would be eliminated. Since the roads would be taken out of private hands and administered as a unit by the Federal government, discriminations and other unfair practices would cease.

It is also held that under public ownership service rather than profits would become the ideal. Since profits would no longer be necessary, lower rates could be offered. Government ownership would allow the elimination of duplicating lines in competitive areas, and would permit the extension of new lines into areas not immediately profitable. Thus railroads now operated solely for private gain would become instruments of social, as well as of industrial, progress.

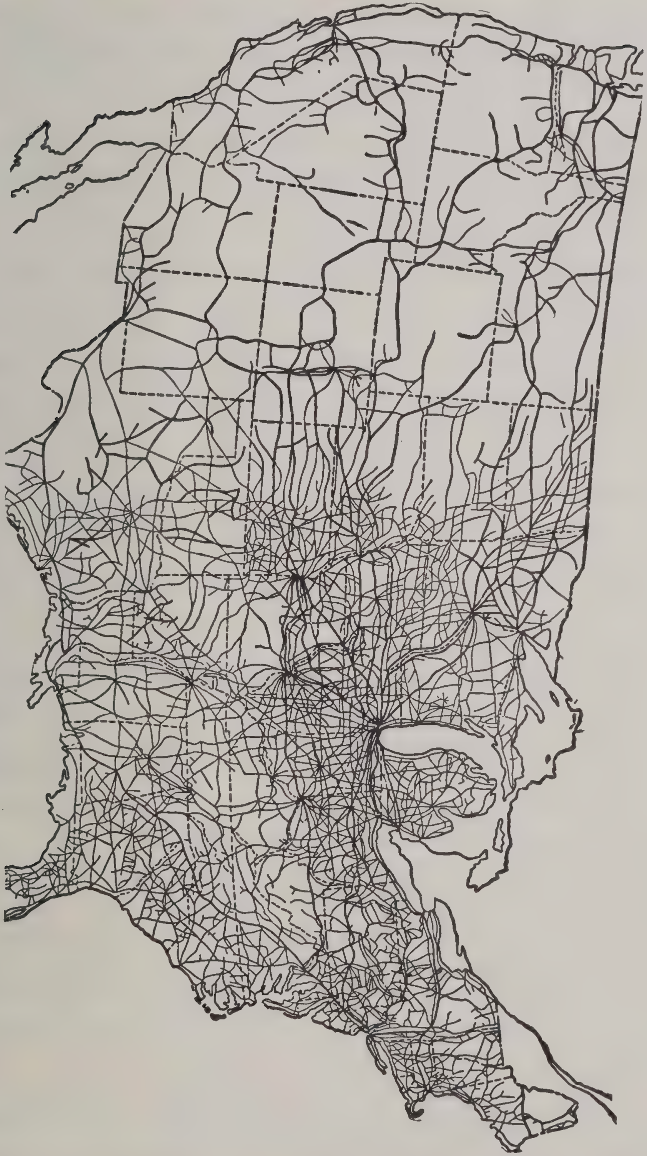
429. Arguments against national ownership of railroads. — Opponents of national ownership maintain that the experience of Prussia and other European countries is no guide to railroad management in this country. Differences in political organization between this and other countries, as well as additional factors, render unreliable the results of public ownership in Prussia and other parts of Europe.

Many opponents of government ownership contend that the elimination of private control would increase, rather than decrease, political corruption. Various political interests would bring pressure to bear in favor of low rates for their particular sections of the country.

It is often maintained that the substitution of public for private ownership would discourage personal initiative because public officials would take little genuine interest in the railroads. It is said that government administration of railroads would be marked by waste and inefficiency. This would necessitate higher rates, instead of permitting rates to be reduced. The large initial cost of acquiring the roads is urged against public ownership, as is the gigantic task of administering so vast an industry.

A last important objection to public ownership is that it would cause rates to be rigid. Rates would be fixed for relatively long periods and by a supervisory agency, rather than automatically changing with business conditions as under private ownership. This rigidity would force business to adapt itself to rates, instead of allowing rates to adapt themselves to business needs.

430. Government control of railroads, 1917–1920. — Shortly after our entry into the Great War, the congested condition of the railroads, together with the urgent need for a unified transportation system, led to a temporary abandonment of private control. On December 28, 1917, President Wilson took over



RAILROADS OF THE UNITED STATES IN 1923

the nation's railroads under powers conferred upon him by Congress. The roads were centralized under Director-General McAdoo, assisted by seven regional directors who administered the railroads in the different sections of the country.

The Act empowering the President to take over the railroads provided that such control should not extend beyond twenty-one months after the conclusion of the treaty of peace with Germany. But there has never been a well-organized movement for government ownership of railroads in this country, and when after the signing of the armistice in November, 1918, the immediate return of the roads to private control was demanded, there was little opposition. A number of plans proposing various combinations of public and private control were rejected, and on March 1, 1920, the roads were returned to their former owners. Partly to safeguard the railroads in the unsettled period following the War, and partly to secure a more effective regulation of the nation's railroads, the Transportation Act of 1920 was passed.

431. Results of government control. — Government control of the nation's railroads between 1917 and 1920 resulted in a number of important economies. Repair shops were coördinated so as to be used more systematically and hence more economically. The consolidation of ticket offices in cities effected a substantial saving. The coördination of terminals allowed a more economical use of equipment than had been possible under private control. The unification of the various railroad systems allowed a more direct routing of freight than would otherwise have been possible. There was also a reduction in some unnecessarily large managerial salaries.

On the other hand, the quality of railroad service declined under government control. The personal efficiency of many types of railroad employees also decreased. Most important of all, there was a sharp increase in both freight and passenger rates.

The period of war-time control was abnormal, hence the record of the roads under government control during this period cannot be taken as wholly indicative of what would happen under permanent government control in peace time. But it should be noted that, on the whole, the record of the Railroad Administration between 1917 and 1920 was good. That the above-mentioned economies were effected cannot be denied. Moreover, the decline in service and efficiency, as well as the increase in rates, is at least partially explained by abnormal conditions over which the Railroad Administration had no control. The winter of 1917–1918 was the most rigorous in railroad history. This circumstance, combined with the unusually heavy demands for the transportation of war equipment, helped to demoralize the service from the very beginning of the period of government control. For a number of years previous to 1917 there had been an acute shortage of box cars and other equipment, which also helps to explain the poor quality of service furnished during the war. The labor force was demoralized by the drafting for war service of many trained railroad employees.

432. Summary of existing legislation on railroads. — At present the railroads are privately owned, but publicly regulated by the Interstate Commerce Commission, according to the provisions of the Interstate Commerce Act of 1887, the Elkins Act of 1903, the Hepburn Law of 1906, the Mann-Elkins Act of 1910, and the Transportation Act of 1920.

At the present time all forms of discrimination are generally forbidden. But it is now recognized that under certain conditions a discrimination may be economically justified. Therefore, when the inability to levy a discriminatory rate would work a hardship upon a railroad, the Commission is authorized to suspend the rule. Pooling is likewise generally forbidden, but here again the Commission may authorize the practice at its discretion. Limitations are placed upon the power of railroads to transport commodities in which they are interested as producers.

All interstate rates are to be just and reasonable, and the Commission is empowered to say what constitutes just and reasonable rates. In order to prevent rate wars, the Commission is now empowered to fix minimum as well as maximum rates. The Act of 1920 also gives the Commission the power to establish *intra*-state rates, where such rates unjustly discriminate against interstate or foreign commerce. An *intra*-state rate, of course, is one which has to do only with freight or passenger movements which begin and end within the borders of a single state.

The Act of 1920 extended government control over the railroads in a number of important particulars. To check certain financial abuses, the Commission now has supervision over the issue of railroad securities. For the purpose of increasing the social value of the nation's railroads, the Act of 1920 instructs the Commission to plan the consolidation of existing roads into a limited number of systems. Another clause in the Act of 1920 provides that no railroad may abandon lines, build new lines, or extend old ones, without the consent of the Commission. In times of national emergency, moreover, the Commission may direct the routing of the nation's freight, without regard to the ownership of the lines involved. Lastly, the Act of 1920 made provision for a permanent arbitration board for the settlement of labor disputes in the railroad industry.[1]

Although the regulation of the railroads has been facilitated by recent legislation, the present situation is far from satisfactory. By some students it is believed that national ownership of our railroads is inevitable, unless regulation improves very markedly.

Questions on the Text

1. Illustrate the nature of the principle of decreasing cost.
2. What is the significance of this principle?
3. Describe the regulation of local utilities.
4. Give the chief arguments in favor of municipal ownership.
5. What arguments are advanced against municipal ownership?
6. What is the extent of municipal ownership in this country?
7. What are some of the conditions of municipal ownership?

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[1] An extended extract from the Transportation Act of 1920 will be found in the *Readings*, pages 421–423.

8. Discuss the evils resulting from railroad development in this country.
9. Why did state regulation fail to eliminate these evils?
10. Discuss the nature and effect of the Interstate Commerce Act.
11. Give the chief arguments in favor of national ownership of railroads.
12. What are the chief arguments against this step?
13. When and why were the railroads taken over by the Government?
14. Explain clearly the nature of the results of government control of railroads.
15. Enumerate the laws under which the Interstate Commerce Commission now administers the railroads.
16. Summarize present railroad legislation with regard to (*a*) discriminations, (*b*) rates, and (*c*) the extension of Federal control authorized under the Act of 1920.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXIX.)

1. What are the public aspects of a city water supply? (page 412.)
2. Name some (*a*) similarities and (*b*) differences between waterworks and lighting works. (page 413.)
3. Trace the growth of municipal ownership of electric lighting plants. (page 415.)
4. Why has the development of municipal ownership in the field of gas production been relatively slow? (page 415.)
5. Enumerate some of the conclusions of the Commission on Public Ownership and Operation with respect to municipal ownership. (pages 416–417.)
6. What, according to this Commission, are the four factors controlling the success of municipal ownership? (page 417.)
7. What charges were made against the railroads in the eighties with respect to rates and discriminations? (page 418.)
8. Name some other charges which were brought against the railroads at this time. (pages 418–419.)
9. Discuss the economies effected by the Government during the period in which the railroads were under government control. (pages 420–421.)
10. What did the Transportation Act of 1920 say concerning the powers of the Interstate Commerce Commission in emergencies? (page 422.)

11. What did the Act say concerning the extension and abandonment of lines? (pages 422–423.)
12. What did the Act say concerning the interchange of railroad facilities? (page 423.)

Topics for Investigation and Report

1. Make a list of the natural monopolies in your locality.
2. To what extent are the public utilities in your locality controlled by the (*a*) municipality, the (*b*) state, the (*c*) Federal Government?
3. The franchise-granting power in your state.
4. The regulation of local utilities in your municipality.
5. Extent of municipal ownership in your section. If possible, visit a municipally-owned utility and report upon what you observe and discover.
6. Interview an official of some local public utility upon the desirability of municipal ownership of that utility.
7. The establishment of standards of service by public utility commissions.
8. Geographical distribution of railroads in the United States.
9. How railroad rates are made.
10. History of railroad regulation by your state.
11. Outline some of the more important laws now in force in your state relative to railroads.
12. Service and rates in your locality during the period of government control, 1917–1920.
13. Extent to which there is a demand for national ownership of our railroads.
14. The "physical valuation" of the railroads.
15. The personnel of the Interstate Commerce Commission at the present time.

Questions for Classroom Discussion

1. Has the franchise-granting power been abused in your state?
2. Should municipal utilities be regulated by the state, or by the municipality, or by both?
3. Has the regulation of local utilities in your locality proved successful?
4. The success of municipal ownership in your locality.
5. Why has municipal ownership been applied most often to waterworks, rather than to, say, street car systems or electric light works?

6. Is public ownership of the telephone advisable at this time? Why?
7. Extent to which *intra*state commerce is influenced or controlled by the Interstate Commerce Commission.
8. Discuss the statement that "in the case of railroads, competition is the death of trade."
9. What is the practice of "charging what the traffic will bear"? Is this practice defensible?
10. What is the purpose of a "physical valuation" of the railroads?
11. Is government ownership of railroads a step toward socialism?
12. Should the Interstate Commerce Commission control *intra*state rates?
13. What is the relation of civil service reform to the national ownership of railroads?
14. Is public ownership of railroads more practicable under a democratic or under an autocratic form of government?

CHAPTER XXX

THE TARIFF [1]

a. Nature of the tariff

433. Meaning of the term "tariff." — All civilized nations allow and even encourage the division of labor among their own citizens. On the other hand, countries in all ages have restricted the degree to which their citizens may exchange their surplus products for the surplus goods of foreign producers. In the United States, for example, Congress exercises the power to levy a duty or tax upon foreign-made goods which are brought into this country for sale here. This duty or tax is known as the *tariff*.

This tariff may be levied primarily to increase national revenue, in which case the rate of duty is generally too low to keep foreign goods out of our markets. When the tariff is purely a revenue measure, "free trade" is said to exist, the term "free trade" meaning a relatively low tariff, rather than the utter absence of a duty.

On the other hand, a tariff may be so high that domestic goods will be protected in our markets against competition from foreign-made goods of a similar grade. In this case a protective tariff is said to exist, though such a measure also brings in revenue. The typical tariff act is a long, detailed document, embracing both "revenue" and "protective" elements. For this reason, it is only when a tariff act is *primarily* a protective measure that we speak of it as a protective tariff.

434. The meaning of "protection." — Let us be sure that we understand exactly what is meant by the term "protection" in the sense in which it is used in tariff discussions.

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[1] A review of Chapter XIII would serve as a good introduction to the material in this chapter.

Suppose that in the absence of a protective tariff a pair of English-made shoes can be produced and brought to this country at a total cost of $3.00. Let us assume that these shoes compete in the American market with American-made shoes which are of similar grade, but which, for various reasons, it costs $3.50 a pair to produce. Suppose, further, that both English and American producer must make a profit of $0.50 per pair of shoes, or go out of business.

In the resulting rivalry, the English shoe can sell for $3.50 per pair and still yield the English manufacturer a profit. Competition would force the American producer to sell his shoes for $3.50 a pair also, but since this would give him no profit, he would be forced out of business. In such a case, the American manufacturer might secure the passage of a protective tariff on this type of shoe, so that the English shoes would be charged $0.75 per pair to enter this country for sale here. This would bring the total cost of the English shoes to $3.75 per pair, and to make a profit the English producer would have to sell the shoes for at least $4.25 a pair. But since the American shoes can be sold for $4.00, the English shoes cannot compete with them and are consequently forced out of the market.[1]

The tariff question arises primarily in connection with the matter of protection, and may be stated as follows: Ought Congress to interfere with international trade by levying protective duties on imports; and, if so, just how and to what extent should such duties be levied?

435. Tariff history of the United States. — The first tariff measure in our national history was the Act of 1789. This was a revenue measure, though it gave some degree of protection to American industries. Down to the close of the War of 1812 the tariff was mainly for revenue purposes. After the close of that war a heavy duty was imposed upon foreign iron and textile products. This was for the purpose of protecting domestic producers against the cheaply selling English goods which were flooding our markets. After 1816 it became our policy to combine in the same tariff act protective duties with revenue duties. In 1824 the general level of duties was raised. In 1828 Congress endeavored to lay a tariff which would suit all sections of the country, but the attempt failed. The Act of 1828 went down in history as the "tariff of abominations."

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[1] If, in this example, the duty were, say, $0.25, the foreign shoe could continue to enter our markets and compete with the American shoe. In this case the tariff would be a *revenue*, and not a *protective*, measure.

Between 1828 and 1842 the tariff was gradually lowered. Between 1842 and 1861 our tariff policy was unsettled, but in the latter year the disturbances brought on by the Civil War resulted in the passage of a tariff which turned out to be highly protective. In the period immediately following the Civil War the tariff continued to be very high, due chiefly to pressure from industrial interests which had secured protection from the war rates. After 1870 there arose an insistent demand that the tariff be lowered, but in spite of numerous efforts and pretenses at reducing the level of duties, the tariff continued for many years to be highly protective.

Custom House, New York City

In 1894 the Democrats reduced the tariff somewhat, and in 1909 the Republicans attempted to satisfy the popular demand for lower rates by the passage of the Payne-Aldrich Act. This measure effected numerous changes in the tariff, but did not reduce the duties on essential commodities sufficiently to satisfy the popular mind.[1] In 1912 the Democrats returned to power, and the following year passed the Underwood-Simmons Act. This Act continued high duties on many classes of goods, but lowered the rates on other commodities, and placed a number of important articles on the free list. In 1920 the Republican party returned to power, and the tariff was raised.

436. Compromise character of the tariff. — Our tariff history is full of inconsistencies. The pendulum has swung first to low duties and then to severely high duties. No tariff has satisfied all the interests involved; indeed, no other issue, with the possible exception of slavery, has provoked as much political strife as the tariff. Every tariff is essentially a compromise, for a duty on practically any commodity which we might select would benefit some of our citizens, while it would either prove of no use to other individuals, or would actually injure them. Animated by self-interest, the farmer, the lumberman, the miner, and the manufacturer, each desires a protective duty on the commodity which he *produces*, and a low rate, or no duty at all, upon commodities which he *consumes*. As a result, the tariff has become a sectional problem, in the solving of which Congressmen have too often considered as paramount the economic interests of the particular locality which they represent.

b. The tariff argument

437. Nature of the tariff argument. — Individuals who disagree over the tariff are generally divided by that question into two camps. One group favors "free trade," and the other group demands duties that are protective.

From the standpoint of the economist, the most vital argument against protection is that there is no fundamental reason why there should not be free trade between nations. Protection interferes with the division of labor between individuals in different countries. Protection is economically wasteful because it diverts capital and labor from industries in which we are relatively effective to industries in which our productivity is relatively low. High protection is thus said to decrease the national productivity, and to impose a burden upon the consumer by preventing him from purchasing foreign-made goods which are relatively inexpensive.

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[1] For some of the tricks resorted to in framing this act, see the *Readings*, pages 434–436.

In view of these facts, the free trader claims that to the extent that the tariff is an economic proposition, the burden of proof rests upon the protectionists. If this assertion is accepted, the tariff argument consists of the attempts of the protectionist to outweigh the above economic argument for free trade. This he attempts to do by putting forth economic arguments for protection, and by developing social and political reasons for a protective tariff.

438. The home market argument. — Formerly one of the most important arguments for protection was the home market theory. This theory was advanced in 1824 by Henry Clay. In the effort to win the agricultural interests to protection, Clay maintained that a protective tariff on manufactures would develop urban centers, and that this would be accompanied by an increase in the purchasing power of the city dwellers. This increased purchasing power, Clay declared, would assure the farmer of a steady domestic market, not only for his staples, but also for the perishable goods which could not be shipped to foreign countries.

Though still heard in tariff discussions, this argument now exerts less influence than formerly. Perfected means of transportation have tended to place domestic and foreign markets on an equal footing, and to make both types of market equally accessible to the American farmer. Moreover, the population of our cities has increased so much more rapidly than has the productivity of our farms, that it is unnecessary artificially to create a home market for the farmer's produce.

439. The wages argument. — At the present time one of the most important arguments in favor of a protective tariff is that it either creates or maintains a relatively high level of wages for workmen engaged in the protected industries. Those advancing this argument believe that free trade would mean lower wages and a lower standard of living for large groups of workmen.

The free trader replies to this argument by saying that high wages do not depend upon protection, and this for three reasons: First, the wages paid in unprotected industries in the United States are often equally as high as those paid in American industries which are protected by the tariff. Thus protection does not raise wages above the level paid in unprotected industries.

Second, the tariff history of various countries shows that protection and high wages do not necessarily go together. Indeed, wages may be higher in a " free trade " country than in a highly protective country. For example, during a large part of the nineteenth century England was a free trade nation, while Germany was highly protective. Yet wages were higher in England than in Germany.

Third, there is nothing in a protective tariff to force employers to pay more than the current wage. Rather than raising wages, Professor Taussig maintains, " protection restricts the geographical division of labor, causes industry to turn to less advantageous channels, lessens the productivity of labor, and so tends to lower the general rate of wages."

440. The vested interests argument. — An important argument in favor of continued protection is that the introduction of free trade would ruin valuable manufacturing businesses which have been built up under protection, and which are unprepared or unable to maintain themselves against foreign competition. In the case of such industries, it is maintained, the removal of protection might result in economic disaster. Factories would have to close, investments would depreciate, and numerous laborers would be thrown out of employment.

There is great force in this argument. Even the most ardent free trader must admit that a sudden removal of tariff duties might be demoralizing to industries which have long been used to protection. Nevertheless, the vested interests argument is not so much an argument for continued protection as it is a reason why there should be a *gradual* rather than a *sudden* removal of protective duties. If protection were to be scaled down gradually and wisely, there is no reason why capital invested in industries unable to stand foreign competition could not be transferred, without substantial loss, to industries unaffected by foreign competition.

441. The infant industries argument. — Protectionists claim that industries really adapted to this country may be prevented from arising here because of their inability, while still in the experimental stage, to meet strong competition from well-established foreign producers. Thus we may have the natural resources necessary to develop a certain industry, but because our labor force is unfamiliar with the technical aspects of the new industry, that industry would have to pass through an experimental stage. But while an industry is in the experimental stage the cost of production is relatively high, because of the waste of materials, and the ineffective use of the labor force. Since the cost of production is high, the normal price will tend to be correspondingly high. Unfortunately for such industries, foreign competitors who are well established and who know how to conduct their business economically, can under-sell the product of these experimental or "infant" industries. Protection for such "infant" industries is therefore sought until such time as they will be able to stand foreign competition.

The free trader has generally replied that such protection may be desirable in some cases, but that the infant industries argument is misused. In the first place, it is often advanced in behalf of numerous industries for which we are not really suited. In the second place, once an infant industry is given protection, protection is often claimed as a right, and later on it is difficult if not impossible to secure a reduction of duties. The free trader maintains that care should be taken to make such protection both moderate and temporary, otherwise protection will perpetuate industries for which we are really unsuited. If such protection is not moderate, but excessive, it is likely that the foreign producer has so great an advantage over the domestic producer, that the latter probably never will be able to compete with foreign-made goods. If such protection is not temporary, but must be permanent, then it is likely that the industry is not a normal " infant," but rather a " dwarf " which will never grow up. In such a case protection has the effect of perpetuating an industry for which we are really unsuited.

442. The anti-dumping argument. — From the standpoint of the American tariff, dumping is the practice which some foreign producers have of temporarily selling their surplus goods in this country at an abnormally low price.[1] The chief reason for this is that their supply is so great that if all of it were sold in the domestic market, prices would fall abnormally low. Thus to keep up prices in the home market, they temporarily dispose of the surplus in foreign markets at a relatively low price.

If dumping were permanent, we might gain from this practice, because we might be getting goods at a much lower price than we could manufacture them. But dumping is never a permanent practice. It may last long enough to force domestic producers out of business. Then later, when the foreign supply has fallen off, we suffer from a shortage of goods because the foreign product stops coming in and our own enterprisers have ceased to produce the commodity. If foreign producers *do* continue to supply the American market, they may take advantage of the fact that American competitors have been forced out of business, and demand exorbitant prices.

Most free traders admit the force of this argument, and assent to the levying of tariff duties which are really necessary to protect Americans against dumping.

443. The military or self-sufficiency argument. — A protectionist argument which was greatly strengthened by the

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[1] Some American producers in turn " dump " in foreign markets, but with this practice we are not here concerned.

Great War is the military or self-sufficiency argument. It has long been the claim of the protectionist that a high level of duties encourages the development in this country of all industries producing the necessities of life, as well as all supplies which are vital in war time. High protection was thus defended on the grounds that it permitted the United States to be nationally self-sufficing, thus allowing us to be relatively independent of other countries, especially in war time.

Previous to the Great War many free traders scoffed at this argument as resting upon an unjustified fear of war, but this attitude was changed by the dangers to which we were subjected by the interruption of our foreign trade during that struggle. Memory of the Great War, and of the troubled times which filled the years immediately following that struggle, will undoubtedly render the military or self-sufficiency argument of great importance for many years to come.

c. Some conclusions

444. Importance of the tariff exaggerated. — Each of the two great political parties claims that our national prosperity is closely dependent upon our tariff policy. The Democratic party has repeatedly declared that the Republican policy of a high tariff has injured the country, and that American prosperity demands a relatively low tariff. The Republican party points out, on the other hand, that our periods of greatest prosperity have also been periods of high protection, and declares that much of our prosperity is due directly to the Republican policy of high protection.

So many factors are involved in this question, and statistics are so meager, that it is impossible to say just what is the relation of the tariff to our national prosperity. Nevertheless, it is likely that the importance of this relation has been greatly exaggerated. The tariff policy of a country cannot " make or break " it, for England has thrived under free trade, while Germany grew marvelously under protection.

We may conclude that while the tariff is important, it is not the *determining* factor in our prosperity. By far the greater part of our trade is domestic, and hence is largely unaffected by the tariff. The most extreme restrictions upon our relatively small foreign trade could hardly affect our prosperity to a decisive extent. Our prosperity is explained, not by the tariff, but by favorable natural resources, utilized by a free, energetic, and intelligent population.

445. Tariff needs. — Yet the tariff is an important economic and political issue, and for this reason it challenges our serious attention. From the standpoint of practical politics, one of the greatest needs of our time is for an intelligent and public-spirited handling of tariff problems. The tariff is a technical and highly complex question, upon which politicians have heretofore had too much to say, and trained economists too little. Too often vague claims and political propaganda have carried more weight than have facts. On the other hand, the economist sometimes forgets that the tariff involves important political and social considerations as well as economic problems.

It is asserted by many that the tariff can never be taken out of politics, and that this is a deplorable situation. But this is perhaps the wrong attitude. There are many reasons why the tariff should not be taken out of politics, though it is undeniable that the political handling of tariff problems ought to be safeguarded and regulated. In this connection an interesting development was the establishment in 1916 of the United States Tariff Commission. This Commission consists of six members appointed by the President for twelve years. Not more than three of the members may belong to the same political party. It is the duty of the Commission to investigate conditions bearing upon the tariff and to report its findings to Congress. It is hoped that this plan will place at the disposal of Congress scientific data on which to base tariff legislation.[1] In the last analysis, however, the actual *control* of tariff-making remains with Congress.

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[1] For a description of the Commission at work, see the *Readings*, pages 429–431.

446. The question of a tariff policy. — It is sometimes said that our tariff policy ought to be less changeable. Certain it is that our tariff history is full of inconsistencies and irrational fluctuations. But the question of a tariff policy is a thorny one. Manifestly, business should not be forced to accommodate itself to purely political manipulations of the tariff; on the contrary, the tariff ought to vary, at least to some extent, with changes in business conditions at home and abroad. Whatever may be implied by a tariff " policy," it is also certain that the tariff should somewhat accommodate itself to revenue needs.

Beyond these somewhat general statements, however, it is hardly safe to say what should be the basic elements in a national tariff policy.

Questions on the Text

1. What is the meaning of the term " tariff " ?
2. What is meant by " free trade " ?
3. Explain carefully the significance of the word " protection, " as used in this chapter.
4. Outline the tariff history of the United States between 1789 and 1828.
5. Give the chief developments in American tariff history between 1828 and the present time.
6. What is meant by saying that " every tariff is essentially a compromise " ?
7. What is the nature of the tariff argument?
8. What is the home market argument?
9. How does the free trader reply to the wages argument in favor of protection?
10. What is the vested interests argument?
11. Explain the " infant industries " argument.
12. What is dumping, and how is this practice related to the tariff question?
13. Explain the military or self-sufficiency argument.
14. What is meant by saying that the importance of the tariff is exaggerated?
15. Name some of our tariff needs.
16. What can be said concerning a tariff policy?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXX.)

1. What is the doctrine of comparative advantage? (page 425.)
2. Explain this doctrine with reference to the individual. (page 425.)
3. Explain this doctrine with reference to trade between England and America. (pages 426–427.)
4. Give two reasons for the regulation of international trade. (page 427.)
5. Illustrate the statement that "revenue duties may afford some protection, and protective duties yield revenue." (pages 428–429.)
6. What are the chief duties of the United States Tariff Commission? (page 430.)
7. How does the Commission gather information concerning commodities? (page 431.)
8. Comment upon the complexity of the Tariff Act of 1913. (pages 432–434.)
9. What factors encourage trickery in tariff legislation? (pages 434–435.)
10. Give some examples of trickery as practiced in framing the Tariff Act of 1909. (pages 435–436.)
11. To what factors does Professor Taussig ascribe our general welfare? (page 438.)
12. What is the conclusion of Professor Taussig with respect to the relation between the tariff and our national prosperity? (page 438.)

Topics for Investigation and Report

1. Factors which distinguish domestic from foreign trade.
2. Tariff legislation during the American Civil War.
3. The history of any important tariff act since the Civil War.
4. Extent to which the tariff is a source of Federal revenue in this country.
5. The home market argument with reference to conditions in your section.
6. Political significance of the wages argument in favor of protection.
7. Commodities which we import from foreign countries for use as raw materials.
8. The infant industries argument for protection, during and immediately following the Great War.
9. The attitude of your section of the country toward the tariff. Has this attitude changed in the past half century?

10. Interview a friendly business man as to his attitude toward the tariff.
11. Interview an official of a local trade union on the attitude of the trade union toward the tariff.
12. Interview a member of the Democratic party as to the attitude of his party toward the tariff.
13. Interview a member of the Republican party as to the attitude of his party toward the tariff.
14. The relation of the tariff to the cost of living.
15. The work of the United States Tariff Commission.

Questions for Classroom Discussion

1. Why do we not levy duties upon exports from the United States, as well as upon imports into the United States?
2. What is a " retaliatory tariff " ?
3. Discuss the statement that " the higher the tariff rate, the smaller the revenue yielded."
4. Discuss the statement that " we ought not to import any commodity which can be grown or produced in the United States."
5. What is meant by adjusting the tariff so as to equalize the cost of production in this and other countries?
6. What classes of individuals gain from the tariff act now in effect?
7. What classes of individuals are not benefited by the tariff act now in effect?
8. What is the relation of dumping to large-scale production?
9. The wages argument has increased in importance in the past century. Why?
10. What " infant industries," if any, are now being protected by our tariff?
11. What is the relation of political corruption to tariff legislation?
12. Why is the Democratic party generally thought of in connection with free trade or a low tariff, while the Republican party is thought of in connection with a higher level of duties?
13. The part played by the tariff in presidential elections.
14. The problem of building up a national tariff policy.
15. To what extent, if to any, should the formation of our tariff acts take into consideration the wishes of foreign producers who desire to sell their goods in this country?

CHAPTER XXXI

MONEY AND BANKING [1]

a. Two earmarks of a sound banking system

447. A banking system must be safe. — As we saw in Chapter XII, the extension of bank credit means, primarily, that a bank contracts to pay out money which it does not actually have in its vaults. A bank note is a promise to pay gold upon demand; a deposit credit means that the borrower has the right to demand a certain amount of money of the bank at any time. As a fundamental proposition, the bank may feel justified in thus extending its credit, because of the security which the borrower has left with it. If for any reason the borrower fails to repay the sum borrowed, the bank can sell the security left with it, and thus can ultimately protect itself against loss.

In thus being able to extend credit, the bank is performing one of its most valuable functions. But is such an extension of credit safe? A first earmark of a sound banking system is safety. Let us inquire into this.

448. The importance of confidence in a bank. — Let us begin our inquiry by noticing the importance of confidence in a bank. In any orderly community, people ordinarily have confidence in the ability of a bank to meet its obligations. We ordinarily accept bank notes as the equivalent of coined money because we have confidence in the ability and willingness of the bank to give us gold for those notes, should we demand it. And since notes are easier to carry than gold, we even prefer notes to gold, so long as we have faith in the bank issuing them.

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[1] A review of Chapter XII would serve as a good introduction to the material in this chapter.

Likewise, borrowers are willing to give the bank valuable stocks and bonds as security for a loan, and to receive back only a check book, because past experience has taught them that they can use that check book to secure money whenever they like, and up to the amount of the sum which they borrowed.

449. What the bank does to make banking safe. — There are two reasons why confidence in a bank may exist. A first reason is that bankers ordinarily conduct their business in such a way as to safeguard their credit.

When a bank extends its credit it makes sure that it has on hand, against the demands of its customers for money, a reserve fund of cash, or securities which by law it is allowed to count as cash. This, as we have seen previously, may be anywhere from five to thirty-five per cent of the credit obligations of the bank, the exact percentage depending upon a number of circumstances. In addition, the bank endeavors to keep a large share of its assets " liquid," that is to say, it loans out its funds for different periods, and in forms which will allow it to have a steady stream of maturing loans. This may serve to replenish the reserve fund from time to time.

One more word concerning the reserve fund. The whole principle of this fund is based upon the fact that people having bank notes, and people having checking accounts with the bank, will ordinarily demand of the bank only as much coin as they actually need. If all of the depositors of a bank were suddenly and simultaneously to demand the full amount of their claims in coin, the average bank would be unable to accommodate them, because banking business is based upon the habit of people leaving most of their funds in the bank. So long as men have confidence in a bank, they will prefer checks and bank notes to the less convenient coin, unless they need coin for some special purpose.

450. What the law does to make banking safe. — The law is a second factor which operates to render banking safe. Both the Federal government and the governments of the various states have detailed laws which control and supervise banking organization and practice. The primary object of these laws is to safeguard the public against careless and dishonest bankers. Thus the efforts of the banker, which are undertaken primarily in his own interest, are supplemented by legal restrictions. Altogether, banking in such a country as the United States is a relatively safe business, far more so than is supposed by persons ignorant of the real nature of the process. The really great drawback to our banking system has long been, not lack of safety, but lack of elasticity. We may now turn to this second great earmark of a sound banking system.

451. The meaning of elasticity. — The meaning of elasticity in banking is easy to understand. An ordinary rubber band is elastic, because when we pull at it it stretches, and when we release one or both of the taut ends it relaxes. Thus it responds promptly and effectively to pressure and to the removal of pressure. Elasticity in banking involves the same principle. A banking system is elastic when it is able to respond promptly and effectively to demands for more money and credit, and when it is also able to absorb the surplus money and credit after the demand for it has slackened.

452. A banking system must be elastic. — A sound banking system will be elastic, that is to say, it will respond promptly to the varying needs of business. Money and credit constitute a mechanism by means of which business is handled, just as the labor force of a factory constitutes a means of handling the output of that factory. If the output of the factory increases, a larger labor force is needed; if the output dwindles, fewer laborers are needed. Similarly, if business increases in volume, an increased amount of money and credit is necessary to handle the increased volume of business. If, on the other hand, business declines, the volume of the circulating medium ought also to decline. The failure of a banking system to prove elastic may work great evils.

453. How an inelastic banking system may work evil. — We may illustrate the evil effects of an inelastic banking system by assuming two simple cases.

Suppose, on the one hand, that business has greatly increased in volume, but that the banking system is inelastic. More and more business is being done in the community, and consequently more and more funds are needed in order to finance new undertakings and to buy additional equipment and raw materials for businesses already established. Business men make more and more demands upon their banks for credit, but the banks cannot respond to these demands. As a result these customers may find that in spite of the first-rate security which they have to offer, they cannot get "accommodation." They are thus blocked in their business, and must abandon new enterprises and restrict their customary operations. Thus business may be checked and repressed by the stiffness and inelasticity of the very instrument which ought to aid it in expanding and developing.

Suppose, on the other hand, that business has been very brisk, but that now it declines. This means that whereas the former demand for money and credit called into existence great amounts of funds, there is now less demand for a large circulating medium. If the banking system is inelastic, much or all of the excess money and credit will remain in circulation, though the industrial demand for it has ceased. This will result in high prices, for the following reason:

Money and credit are used to buy commodities and services. As a general proposition, all the available goods in a community are in the process of exchanging against all of the available funds in the community. If goods are relatively few and funds are relatively plentiful, a small amount of goods can command a large amount of money, *i.e.* goods will sell for high prices. For example, suppose that wheat sells for $.90 a bushel in 1922, and that during 1923 the amount of money in circulation increases greatly. There is now more money with which to bid for goods, and accordingly competition among buyers results in higher and higher prices being offered for wheat. *Other things remaining equal*, the price of wheat will rise. If wages have gone up also, this increased price for wheat may not work injury upon the consumers; if, on the other hand, business is declining and wages falling, such high prices may work a great hardship upon the consuming public.

b. The national banking system

454. Meaning of the term "national banking system." — The Civil War plunged our government into serious financial straits. Partly to provide a uniform currency, but chiefly to improve the finances of the Federal government, there was created, in 1863, a system of national banks.[1] The original act of 1863 is still the basis of our banking system, though it has since been modified a number of times, notably in 1913.

We speak of a "national banking system," but as a matter of fact this term is inexact. From the beginning of their history, the so-called national banks were national only in the sense that they were chartered by the Federal government, and were subject to examination by Federal inspectors. These national banks constituted no definite system, and had no branches. Each shaped its own policies, and had little to do with other national banks. There was little teamwork, and no effective leadership, so that in time of a threatened panic the different parts of the "system" generally worked at cross-purposes instead of as a unit.

The old national banking system was fundamentally safe, but it was highly inelastic. It was inelastic in two ways: First, it provided an inelastic supply of deposit credit; second, it provided an inelastic supply of currency or bank notes.

455. Inelasticity of deposit credit (reserves). — It will be recalled that the amount of loans which a bank may make depends upon the maintenance of an adequate reserve fund. From this it follows that the larger the reserve fund the more loans the bank will feel justified in making. Similarly, if the reserve fund shrinks, sound banking demands that loans be curtailed. Keeping these facts in mind, there were two reasons why the supply of deposit credit was inelastic before 1913.

In the first place, individual banks kept only a part of their reserves actually in their vaults. The remainder, and sometimes the larger part, of their reserves was maintained in the form of deposits in other banks. Banks in towns and small cities habitually kept part of their reserves in the form of deposits in the banks of large cities, and the latter in turn kept part of their reserves in the banks of New York City, the financial center of the country. Hence the cash reserves of the country tended to collect in New York, where they were utilized by New York banks as a basis for extending loans.

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[1] For a more detailed account of the establishment of the national banking system, see the *Readings*, pages 440–442.

This was a dangerous arrangement. In the fall of the year large amounts of cash were demanded in the West, in order to pay farm hands and otherwise "move the crops." At such times the small western banks had to demand their deposits in larger banks, while these in turn had to call for their deposits in the New York banks. The New York banks were often embarrassed by these demands, because they made a practice of fully utilizing the funds left with them, as a basis for extending loans. The call in the West for cash meant a curtailment of these loans, with a consequent demoralization of eastern money markets.

In the second place, individual banks were unable to extend loans to customers beyond the point justified by the amount of reserves in their vaults, or deposited to their credit in other banks. A bank with a total reserve of $10,000 might feel justified in loaning its credit to the extent of $100,000, but in case demands for additional loans were made upon it, sound banking practice would oblige it to refuse accommodation. Otherwise it might later find itself unable to find enough cash to pay out against claims made in the form of checks. This practice of curtailing loans when reserves were depleted was demoralizing to business, since the disappointed customer might find his entire business blocked, and this in turn would inconvenience or seriously injure all those who were connected with him in a business way.

Before 1913, each bank stood as a unit, and when its reserves were depleted it could not secure adequate aid from other banks. There was no centralized control, and no method whereby national banks might secure help of one another.

456. Inelasticity of currency (bank notes). — We have seen that an increased volume of business demands an increased volume of money and credit. In the previous section it was pointed out that before 1913 the volume of *deposit credit* in this country was inelastic. We must now notice that *bank notes*, or *paper currency*, are just as truly a part of the volume of money and credit as is deposit credit. We must note, also, that just as deposit credit was inelastic before 1913, so the issue of bank notes was inelastic. Previous to 1913 it often happened that the supply of bank notes was smallest when business was expanding, and that the issue of bank notes increased during dull business periods. This statement requires some explanation.

The Act of 1863 provided that national banks might issue bank notes only after depositing in the Federal Treasury an amount of United States government bonds sufficient to render the bank notes absolutely safe. Naturally, the banks made heavy purchases of bonds when the bond market was depressed, and tended to purchase relatively few bonds when those securities were high in price. Since the only reason for purchasing bonds was to enable the banks to issue notes, more notes were issued when bonds were low in price, and fewer were issued when bonds were high. Unfortunately, the same general conditions that stimulated business also tended to raise the price of bonds, while the causes of slack business often operated to lower bond prices. This means that when business was expanding, and more notes were needed, bonds were so high that few were purchased, and consequently few notes were issued. Similarly, when business was dull, more bonds were purchased, and more notes issued.

457. The panic of 1907. — The panic of 1907 attracted attention to these two great defects of the old national banking system, *i.e.* the inelasticity of deposit credit and the inelasticity of currency. In the fall of 1907, a bumper crop caused western banks to make unusually large demands for cash upon the New York banks. Unfortunately, this depletion of reserves came at precisely the time when the demand upon

New York banks for loans was very great. Signs of distress among the New York banks frightened their depositors and increased the demands upon these banks for cash. In October the inability of a few prominent banks to pay in cash all of the demands made upon them started a series of bank "runs." Even solvent institutions were unable to meet their obligations promptly and many failures occurred. A large number of banks were technically insolvent, that is to say, their assets were invested in forms which prevented their immediate conversion into cash, so that for the time being demands for cash could not be met. The lack of an effective banking system prevented these banks from securing adequate aid from banks more favorably situated.[1]

c. The Federal Reserve System

458. The reform of our banking system. — The panic of 1907 stimulated financial experts to attempt to remedy the defects of our banking system. In 1908 a monetary commission was appointed to investigate banking experience at home and abroad. As the result of this investigation it appeared advisable to establish a system which should secure some of the advantages of such centralized banking systems as have long existed in many European countries. A single central government bank was at first recommended by experts, but this was deemed politically inexpedient. In view of this fact, resort was had to a compromise between a centralized and a decentralized system. This compromise was effected by the Federal Reserve Act of 1913.

459. Framework of the Federal Reserve System. — The Act of 1913 is administered by the Federal Reserve Board, consisting of the Secretary of the Treasury and the Comptroller of the Currency, *ex officio*, and five other members appointed for ten years by the President. The country is divided into twelve districts, in each of which there is located a Federal Reserve bank. In each district every national bank must subscribe six per cent of its capital and surplus for stock in the Federal Reserve bank, and thus become a "member" bank. State banks and trust companies may, upon the fulfilment of certain conditions, become member banks. Each Federal Reserve bank is governed by a board of nine directors, six of whom are elected by the member banks of its district, and three of whom are appointed by the Federal Reserve Board. The Federal Reserve banks are bankers' banks, that is, they do not ordinarily deal directly with individuals but with member banks only.[1]

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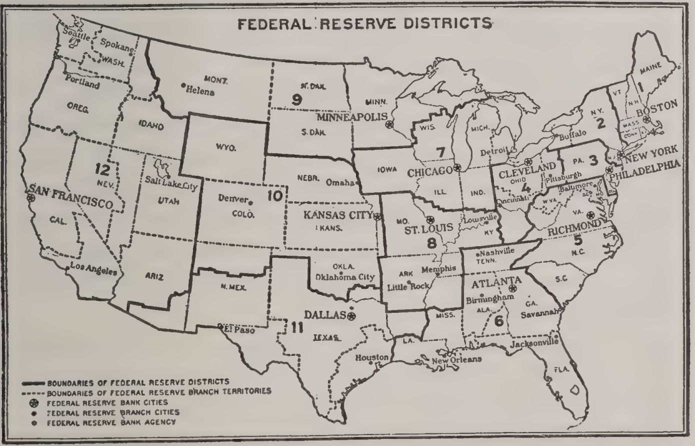
[1] For a further discussion of the panic of 1907, see the *Readings*, pages 444–446.



FEDERAL RESERVE DISTRICTS

460. Elasticity of deposit credit (reserves). — The piling up of bank reserves in New York is impossible under the Federal Reserve System. The reserves of any member bank do not ordinarily move beyond the district, for a member bank may count as legal reserve only those funds which it has placed on deposit in the Federal Reserve bank of its district. There exists what may be called district centralization of reserves; that is to say, a large share of the reserves of all the member banks of a particular district are concentrated in the Federal Reserve bank of the district, and can be utilized as a unit by that Federal Reserve bank. If in time of stress the total reserves of the district are insufficient, the Federal Reserve Board may arrange for the temporary transfer of surplus funds from one Federal Reserve district to another. This secures one of the most important advantages of a central bank without actual centralization.

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[1] For a more detailed account of the framework of the Federal Reserve System, see the *Readings*, pages 447-449.

Elasticity of deposit credit is also provided for in the "rediscounting device." A bank discounts commercial paper when it loans an individual, say, $980, on the security of a $1000 promissory note. The $20 represents an amount which the bank counts out, or discounts, as payment for the service. A further operation, long known in Europe as rediscounting, was authorized by the Act of 1913. When the reserves of a member bank are too low to justify further extensions of deposit credit, the bank can send certain types of discounted paper to the Federal Reserve bank of its district, and receive in return either a deposit credit or a special form of paper currency called Federal Reserve notes.

461. Elasticity of currency (bank notes). — When, in return for discounted commercial paper, the Federal Reserve bank extends a deposit credit to the member bank, the *deposit credit* of the member bank is rendered more elastic. When, on the other hand, the Federal Reserve bank sends the member bank Federal Reserve notes in exchange for discounted paper, the result is a certain elasticity in the *currency.*

The Federal Reserve notes are a new type of currency. They are secured by the maintenance, in the vaults of the Federal Reserve banks, of a forty per cent gold reserve for their redemption. Since these notes are issued to member banks in return for rediscounted paper, the expansion of business and the resultant tendency of member banks to send discounted paper to the Federal Reserve bank for rediscount causes the volume of Federal Reserve notes to expand. When the need for additional currency has subsided, there is an arrangement whereby a certain amount of the Federal Reserve notes may be withdrawn from circulation. This is important, for if the amount of money in circulation continues to be enormous after business has declined, inflation and high prices result. *A truly elastic banking system necessitates contraction as well as expansion.*[1]

462. The outlook. — On the whole, it would seem that the Federal Reserve System is a happy compromise between the centralized banking systems of Europe and the highly decentralized system existing in this country prior to 1913. The Federal Reserve System allows us to secure the main benefits of a great central bank without the political difficulties attendant upon the existence of such a bank. It does a great deal to make elastic our supply of money and credit. The Federal Reserve Board can mobilize the entire banking strength of the country in time of stress, so that the strength of one member bank is the strength of the whole system. Since it controls not only a substantial proportion of the bank reserves of the country, but also the privilege of note issue on the security of rediscounted paper, the Federal Reserve Board can administer the banks as a unit. The system may not eliminate panics, but it is fair to expect that it will reduce their number and mitigate their violence.

Questions on the Text

1. Explain the relation of confidence to banking.
2. What does a bank do to make banking safe?
3. What does the law do to make banking safe?
4. What is meant by " elasticity in banking " ?
5. Name one evil effect of an inelastic banking system.
6. Explain a second evil effect of an inelastic banking system.
7. What is meant by the term " national banking system " ?
8. Explain the inelasticity of deposit credit before 1913.
9. Discuss the inelasticity of bank note issue under the old national banking system.
10. What was the significance of the panic of 1907?
11. Outline the framework of the Federal Reserve System.
12. Explain in detail how the Act of 1913 provides for elastic deposit credit.

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[1] For a further discussion of the way in which the Federal Reserve System functions, see the *Readings*, pages 449–453.

13. Explain the "rediscounting device."
14. How does the Act of 1913 provide for an elastic bank note issue?
15. What is the present outlook with respect to our banking system?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXXI.)

1. Name the chief characteristics of the national banking system as provided for by the Act of February 25, 1863. (pages 440–441.)
2. Discuss the circulation of the national banks. (page 441.)
3. Describe the attempts to improve the system. (pages 441–442.)
4. Explain carefully "the fundamental defect of the national banking system" as it existed prior to 1913. (pages 443–444.)
5. Describe the early stages of the panic of 1907. (page 444.)
6. What were some of the results of the panic? (page 446.)
7. What was the primary purpose of the Federal Reserve Act? (page 447.)
8. Describe the duties and powers of the Federal Reserve Banks. (pages 447–448.)
9. What is the purpose of the Federal Advisory Council? (pages 448–449.)
10. Explain clearly the way in which the Federal Reserve System provides for mobility of reserves between different Federal Reserve districts. (page 450.)
11. Explain clearly the way in which the Federal Reserve System provides for mobility of reserves between the member banks of any one Federal Reserve district. (pages 450–451.)
12. How is the circulation of Federal Reserve notes contracted? (page 452.)
13. How is deposit currency contracted under the Federal Reserve System? (page 453.)

Topics for Investigation and Report

1. Outline some of the more important provisions of the banking laws of your state.
2. Interview a local banker on the importance of public confidence.
3. Inflation during the Great War.
4. Effect of a fall in prices upon different classes in your community.
5. The First United States Bank.
6. The Second United States Bank.
7. Organization of the Bank of England.
8. Organization of the Bank of France.
9. Organization of the German Bank.

10. Organization of our national banking system prior to 1913.
11. What are the limits of the Federal Reserve district in which you live? In what city is the Reserve Bank located? Why is it located in this city rather than in some other city?
12. List the banks in your vicinity that are members of the Federal Reserve System.
13. Interview an official of a bank belonging to the Federal Reserve System upon the advantages of such membership.
14. Interview a friendly official of a bank which does not belong to the system. Try to ascertain the reasons why this bank does not belong to the Federal Reserve System.
15. The extent to which banks other than national banks now belong to the Federal Reserve System.

Questions for Classroom Discussion

1. Suppose you were a banker. How would you go about it to discover the reliability of a prospective borrower?
2. What is the difference between a panic and a crisis?
3. Discuss the statement that " in time of panic, the only sound policy is for the banks to loan freely."
4. The meaning of the term " purchasing power of the dollar."
5. Discuss the statement that " the greatest safeguard to banking is the banker's fear of the depositor."
6. Discuss the statement that " it is not the *amount* of the reserve fund that is important, but the *proportion* which it bears to the credit liabilities of the bank."
7. Discuss the statement that " the banker has two conflicting motives, first to conduct a safe business and second to make as much money as possible."
8. What is the meaning of the statement that " a rise in prices means a fall in the value of money " ?
9. The psychology of a bank " run."
10. The essential difference between a centralized and a decentralized banking system.
11. Should we adopt a centralized banking system such as exists in several of the European countries?
12. Should all state banks and trust companies be required by law to become members of the Federal Reserve System?
13. What is the relation of speculation to banking?
14. What would be the best method of acquainting the general public with the fundamental principles of banking?
15. Do you feel able to explain the essential nature of the Federal Reserve System to some one who has never studied it?

CHAPTER XXXII

TAXATION

463. The increasing cost of government. — In the United States, as in other modern civilized countries, the cost of government is steadily increasing. The settlement of the Great West, the depletion of natural resources, and the transition from a primitive to an industrial economy, these factors have obliged our government to pay out larger and larger sums for the services of public officials, and for the materials and commodities used for public purposes. The growth of our cities and the increasing complexity of our industrial life have greatly increased the number of activities which it is to our advantage to carry on, not individually, but collectively or through the agency of government. The spread of altruism and the widening of the concept of social service have caused the extension of governmental activity into such new fields as social insurance, recreation, and public health. Altogether, our total government expenditure is more than seventeen times as large as it was a half century ago, while the per capita expenditure is more than five times as great.

464. Sources of public revenues. — Writers on taxation generally enumerate as sources of public revenue the following: public industries, the public domain, gifts, confiscations, fees, special assessments, fines, and taxes. At various times and in different countries of the world, all of these have been important, but in the United States at the present time taxes are by far the most important source of public revenue.

A tax may be defined as a compulsory contribution exacted from the individual by the government, for the purpose of defraying expenses incurred for the common welfare. The government does not return to the individual taxpayer a definite commodity or service. In return for taxes the government indeed renders many valuable services, such as public education, the safeguarding of health, and protection from domestic violence and foreign foes. But on account of the collective character of these services, no attempt is made to apportion the payment exacted of the individual to the benefit which he as an individual receives.

Until recently our national government secured most of its revenue from taxes on commodities imported into the United States from foreign countries, and from excises or internal taxes on such commodities as tobacco and liquor. Since national prohibition went into effect in 1919, the Federal revenues are derived mainly from taxes on imports, from income and inheritance taxes, and from taxes on corporations.

The larger part of the receipts of state and local governments are derived from the general property tax, the amounts collected from other sources being as yet relatively small. The general property tax is supposed to be levied upon all the property in the possession of taxpayers, though, as we shall see a little later, this tax works out very badly. The old " poll " or head tax was formerly important, but at present less than two thirds of one per cent of state and local revenues are derived from this source. In most states it has been abandoned because of its small yield, and because of the difficulty and expense involved in collecting it.

a. Defects in American taxation

465. Lack of a tax system. — The fundamental defect of American taxation is the lack of a definite and coördinated system. The tax laws of most states have been radically changed during the last few decades, and are still in a process of development. In many states old taxes are being modified or abandoned, and new taxes adopted. But too often this is being done without regard for the taxation reforms of other states or of the Federal government. As a result, the tax burden weighs unequally upon different classes, while between state and state, or between state and Federal government, there is an over-lapping of tax power. The effect of this over-lapping is to create undue confusion, and to demoralize both tax officials and taxpayers.

466. Legal restrictions upon taxing power. — A serious defect of American taxation is the lack of correspondence between taxing power and fiscal needs. Let us inquire into this.

The Federal government has important functions to perform, but has practically unlimited taxing power. So far as the national government is concerned, the problem of finding sources of revenue is relatively simple.

The functions assumed by the state governments are as yet relatively few and inexpensive, while the power of the state to tax is but slightly abridged by the Federal Constitution. States have relatively little difficulty in making both ends meet.

Local governments, and especially municipal governments, have a large number of functions which are increasingly important. Of the total government expenditure in this country, about a third is made by the Federal government, one tenth is made by the state governments, and more than half is made by the local governments. But whereas Federal and state governments have relatively adequate taxing powers, the taxing powers of local governments are narrowly restricted by the state constitution and statutes. Such local functions as health, public school education, and recreation are constantly demanding greater expenditures, yet local governments as yet have few opportunities for securing necessary funds.

467. Defects in tax assessment. — The defects of tax assessment are clearly illustrated in the workings of the general property tax, called by some authorities the worst tax in the civilized world. The basis of levy is the work of local assessors, who are generally elective. The assessors throughout this country estimate the value of millions of dollars' worth of property, and their estimates are the basis of the tax rates for not only township and county, but generally for the state as well. Incapable and dishonest assessors often work injustice by under-estimating the value of some forms of property and over-estimating the value of other forms. In addition, political pressure is brought to bear upon the assessor to cause him to undervalue the property of the township or county as a whole, so that the local unit will bear a relatively small share of the taxes of the state.

The estimates of the local assessors are commonly subject to correction by a county, and sometimes by a state, board of equalization. The duty of such a board is to make assessments uniform and just, but notwithstanding the efforts of these bodies, unequal and unfair assessments have persisted.

468. Difficulty of taxing intangible property. — Where taxation is on the basis of assessment, it often happens that the tax burden rests unequally upon different forms of property. Property which is in tangible form, such as land, cattle, and houses, is easily discoverable, and hence cannot easily evade the payment of taxes. But intangible property, such as stocks, bonds, or mortgages, can easily be hidden, so that owners of these types of property often evade their share of the tax burden.

This evasion is often practiced in the case of the general property tax, which is intended to reach both tangible and intangible property. The general property tax worked well a century ago when the greater share of wealth existed in tangible form, because local assessors could easily locate such things as land and live stock. But the rapid development of corporations, bringing with it a rapid increase in the proportion of intangible forms of property, has rendered the general property tax grossly unjust. The assessors of the general property tax cannot easily discover intangible property, unless taxpayers coöperate with them. The all too frequent lack of such coöperation causes a disproportionate share of the tax burden to fall upon tangible property. The general property tax is haphazard, ineffective, and demoralizing to both tax officials and taxpayers.[1]

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[1] For a further discussion of the general property tax, see the *Readings*, pages 457–458.

469. Double taxation. — By double taxation is meant the taxation of an individual or different individuals twice for the same thing. Double taxation is of two kinds.

The first type of double taxation is illustrated by the taxation of both tangible property and the paper claim upon that property. For example, a state may tax a landowner on his land, and also tax another resident of the state on the mortgage which he holds against that land. Or it may happen that a state will tax the land, buildings and other tangible equipment of a corporation, and at the same time tax those of its residents who hold stock in that corporation, *i.e.* individuals who hold paper evidence of ownership in the tangible equipment of the corporation. More generally, however, this first type of double taxation arises when the holder of the paper claim resides in one state, while the tangible property lies in another state. In such a case, it is common for the one state to tax the paper claim, and for the other state to tax the property itself. This type of double taxation is manifestly unfair, and often imposes a ruinous burden upon property.

The second type of double taxation is illustrated by the overlapping of similar taxes between state and state, or between Federal and state governments. It is the practice of most states to seek revenue without regard to the taxing activities of other states, or of the Federal government. For this reason it may happen that corporations, incomes, or inheritances are taxed by more than one agency of government. If a scientific and coördinated tax system were deliberately to provide for this, the supposition would be that such taxation were reasonable and just, because intended to bear with equal weight upon all forms of property in the taxable class. But in actual practice such taxation is haphazard, and bears with unequal weight upon corporations and individuals. It is therefore unjust.

Moreover, it encourages the evasion of tax burdens. Individuals and corporations sometimes migrate from localities or states in which they are subject to double taxation, to localities or states in which the danger of such taxation is less. This in turn has the evil effect of tempting states and municipalities to lighten taxes on corporations, incomes, and inheritances for the sake of attracting wealthy individuals and large industrial organizations from neighboring areas.

b. Some suggested tax reforms

470. Ideals in taxation. — Summarizing the views of the more generally accepted writers on taxation, we may say that the following are the basic ideals in taxation:

Taxes should take as little as possible from the people and still maintain the government. Taxes should be uniform, that is to say, all taxable articles of the same class should be levied upon at the same rate. It is also important that the time, manner, and amount of the tax should not be arbitrary, but that the individual's convenience as regards the terms of payment should be considered. From the standpoint of the government, taxes should be easy to administer and economical to collect.

A good tax system will be elastic, so that taxes may easily be increased or decreased, according as the revenue needs of the government change. The ability to pay ought to have some influence upon the extent to which an individual is taxed. Taxes should also adapt themselves somewhat to the local sentiment as to what is expedient or socially desirable.

Finally, taxation policies should be systematized and coördinated.

471. Essentials of a taxation system. — The construction of an ideal taxation system in this country would involve three steps.

In the first place, each branch of government should be enabled to secure those revenues which are actually needed for justifiable purposes. In this regard the greatest need is to increase the taxing powers of our municipalities. This is imperative if the cities of the future are to care for their citizens properly.

A second fundamental step relates to the separation of taxing power.[1] Each branch of government should pretty well confine its use of the taxing power to definite types of taxable wealth. The Federal government, for example, might secure most of its revenue from import duties, excises, and income tax, and stamp taxes of various kinds. Many taxation experts believe that the states ought to confine themselves mainly to license, corporation, inheritance, and possibly income taxes. Local governments might well secure most of their revenue from taxes on franchises, taxes on real estate, and license taxes on such persons as pedlars and automobile owners. Such a separation of taxing power might aid in the adjustment of fiscal needs to taxing power, as well as helping to remedy the evil of double taxation. However, a complete separation of taxing powers is not necessarily desirable, and certainly it is not practicable, for there is a growing tendency toward duplication in income, inheritance, and other taxes. At the present time, for example, not only the Federal government, but many of the states levy income and inheritance taxes.

A third fundamental step would be the coördination of local, state, and Federal taxing authorities. The central aim of such coördination should be so to distribute tax burdens that no form of taxable wealth would escape its just burden, and so that no form of wealth would be subjected to unduly heavy taxation. There is a growing feeling that to prevent double taxation and similar evils, all local taxing bodies ought to be coördinated under the state authorities, while for similar reasons the Federal government ought to have some measure of direction or control over that share of state taxation which is interstate in its effects.

472. Reform or abolition of the general property tax. — The reform of state and local taxation logically begins with the general property tax.

In many states attempts are being made to reform this tax. In some cases " tax ferrets " are employed to discover tax evaders, a policy which may easily lead to corruption and favoritism. In other states the conviction is growing that local elective assessors ought to be supplanted by a permanent corps of state assessors, appointed under the merit system. This would reduce the danger of unequal and unfair assessments.

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[1] This rather technical point is explained in detail in the *Readings*, pages 459–461.

In other states there is a tendency to abandon the general property tax altogether. In New York, Massachusetts, Pennsylvania, and other states, there is a marked tendency to turn over the general property tax to local governing bodies. In such cases it is intended that the state shall depend for most of its revenue upon income, corporation, inheritance, and license taxes.

The future will doubtless see a more widespread tendency toward the reform or abolition of the general property tax. In some states, however, such changes in the taxation system require constitutional amendment, and constitutional amendment is often a slow and tedious process.[1]

473. Reform in land taxation. — Coupled with plans for the reform or abolition of the general property tax are proposals for the reform of land taxation. A primary aim of these proposals, some of which suggest elements of the single tax doctrine, is to secure a more correct assessment of land values. In many cases a state does not now tax the holder of a mortgage when the mortgaged land is also within the state and thus directly subject to taxation. This is a desirable development, but we ought to go still further, so that the holder of a mortgage would not be taxed whether or not he lived in the same state as the owner of the land. A mortgage is obviously not social wealth, but a paper claim on wealth, and this wealth ought not to be taxed twice.

Some authorities believe that the tax rate on land ought substantially to be increased, when it appears that such land is being held for speculative purposes. To encourage improvements, it is also proposed that certain permanent improvements on land be temporarily exempted from taxation. Lastly, it would appear socially desirable to levy special taxes on urban sites, so as to secure for the community some share of the future unearned increment.

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[1] In many states taxation reform is retarded by constitutional limitations. See the *Readings*, pages 461–463.

474. The income tax. — All taxes ultimately come out of income, but when we speak of an income tax we refer to a direct levy upon income as it arises, chiefly in the form of wages, salaries, and profits. A Federal income tax was levied during the Civil War, but in the nineties the Supreme Court held that such a tax violated the constitutional provision that Congress shall not lay direct taxes except in proportion to the population of the states. In 1913 the Sixteenth Amendment to the Constitution permitted Congress to lay and collect taxes on incomes without apportionment among the several states, and without regard to any census or enumeration.

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Filing Income Tax Returns, New York Custom House

Since 1913 Congress has passed several income tax laws, and a number of the states have also adopted this form of taxation. The essential features of these laws are as follows. Incomes below a certain amount are exempt from taxation. The limit of untaxable income is raised for married persons living together. In calculating their net income, individuals may make allowance for debts, business expenses, and certain other items. Upon all taxable income above a certain minimum there is then levied a flat rate, constituting a " normal " tax. Where incomes exceed a certain amount, there is an additional tax. Thus the income tax is said to be " progressive," that is, the larger the income the higher the tax rate.

Many benefits are claimed for the income tax. It falls upon those best able to pay, and it is not easily evaded or shifted by the person upon whom it is levied. It is elastic and can readily be increased or reduced according as revenue needs change. Its progressive character is a feature which is considered socially desirable.

The chief defects of the income tax are two. In the first place, the effectiveness of the tax depends upon the willingness of the individual to declare his full income. This is not always done, especially where the income tax is regarded as an undue interference in the private affairs of the individual. Second, wealthy individuals often migrate to states where there is either no income tax or only a relatively light one. This last defect of course applies only to the state income tax.

475. The inheritance tax. — Taxes upon inheritances have come into prominence since the opening of the twentieth century. Since 1916 the Federal government has levied an inheritance tax. At the present time most of the states also levy this form of tax upon property passing by will or under the inheritance laws of the state. The essential features of the tax are everywhere the same. Small legacies are generally exempt, as are bequests for educational, charitable, and religious purposes. Legacies to direct heirs are either exempt, or are taxed at a lower rate than are legacies to collateral heirs. The rates are progressive, that is to say, they increase with the size of the legacy.

Many benefits are claimed for the inheritance tax. It brings in a large revenue, and falls upon those who are best able to pay. The tax cannot be shifted and it cannot easily be evaded. It is easily assessed and collected, because all wills and most estates must pass through the probate court. It is held that the state has a social claim upon the property of an individual who has amassed wealth under the protection of its laws, and that this property ought not to be transferred intact to individuals who did not aid its accumulation.

If carried too far the inheritance tax would undoubtedly discourage the accumulation of wealth, but tax authorities are already guarding against this danger. On the whole, the inheritance tax is an important addition to our tax system. Its scope is being rapidly extended: rates are being raised, the principle of progression is being more frequently applied, and exemptions allowed direct heirs are being reduced. The tax is increasingly used in the effort to redistribute unearned wealth, though the extent to which this is true depends very largely upon local sentiment.

476. Corporation taxes. — The rapid growth of American industry has been accompanied by an enormous increase in the number and importance of industrial corporations. The proper taxation of these bodies is now challenging the attention of both state and Federal governments.

The difficulties of taxing corporations are two: First, how to prevent that form of double taxation which results from the fact that several states may levy taxes of varying weight upon interstate corporations. Second, how to prevent that form of double taxation which imposes a burden both upon the tangible property of the corporation and upon the stocks and bonds representing ownership in that tangible property.

A number of taxation experts suggest meeting the last-named difficulty by exempting from taxation stocks, bonds, and other securities, and by imposing, instead, a tax directly upon the capitalization of the corporation itself. In the case of corporations which are local and of moderate size, this might be effected by the reform of tax laws within a single state. Where, on the other hand, corporations are distinctly interstate in character, such reform would require either a careful coördination of the tax laws of the several states, or a corporation tax which should be purely Federal in character.

The first difficulty mentioned in the preceding paragraph would likewise have to be met, either by the coördination of state tax systems, or by allowing taxes on interstate corporations to be levied solely by the Federal government.

It is claimed by some economists that the virtual impossibility of effectively coördinating the tax laws of the various states renders it imperative that all interstate corporations be taxed solely by the Federal government. In such a case the Federal government would be taxing interstate corporations partly for its own benefit and partly as the agent for the various states. It is said also that such a Federal tax should be levied on corporations at the source, *i.e.* upon capitalization rather than upon stocks and bonds. Being applied at the source, it would reach all forms of corporation wealth. It would be easy and economical to administer. So far as corporations are concerned, a purely Federal tax on interstate corporations would prevent both forms of double taxation.

Even though the states consented to a purely Federal tax on interstate corporations, however, it might prove very difficult for state and Federal governments to agree upon a fair division of the joint revenues derived from such a tax.

Questions on the Text

1. Why is the cost of government increasing?
2. Name some sources of public revenue.
3. What is a tax?
4. What is the fundamental defect of American taxation?
5. In what way is there an inadequate apportionment of taxing power to fiscal needs in American government?
6. What is the chief difficulty of tax assessment?
7. Why is it difficult to tax intangible property?
8. Enumerate the fundamental defects of the general property tax.
9. Distinguish between the two forms of double taxation.
10. Outline some fundamental ideals in taxation.
11. What are the three steps necessary in the formulation of a satisfactory tax system in this country?
12. To what extent is the general property tax being reformed or abolished?
13. Discuss the reform of land taxation.
14. Describe the nature of the income tax.
15. What are the benefits and defects of such a tax?

16. Describe the inheritance tax. What are its benefits? What are its dangers?
17. What are the two difficulties in the way of taxing corporations? What are some suggested methods of meeting these difficulties?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXXII.)

1. How do you explain the increasing discontent with our taxation system? (page 455.)
2. What, according to Professor Seligman, are the eight defects of our taxation system? (pages 455–456.)
3. What is meant by saying that under modern conditions the general property tax "cannot be enforced effectively"? (page 457.)
4. What is meant by saying that a strict enforcement of the general property tax "would result in a still greater injustice than now prevails"? (pages 457–458.)
5. Explain what is meant by the separation of state and local revenues. (page 459.)
6. What is the first advantage of such separation of revenues? (pages 459–460.)
7. In what way would such separation of revenues secure greater equality in assessments? (page 460.)
8. In what way would such separation of revenues reduce conflicts between city and county? (page 460.)
9. In what way would such separation of revenues render the tax system more flexible and adaptable? (page 461.)
10. Name some tax reforms which have been retarded by constitutional limitations. (pages 462–463.)
11. Discuss the movement toward the amendment of state constitutions. (page 463.)
12. What two widespread tendencies are revealed by a study of American taxation? (page 464.)
13. Explain the importance of a thorough investigation of the state taxation system. (pages 464–465.)
14. What four maxims of taxation were advanced by Adam Smith? (pages 466–467.)

Questions for Investigation and Report

1. The power of Congress to tax.
2. Scope and variety of public expenditures in the United States.
3. Make a list of enterprises supported out of public funds and

providing services free to all, regardless of their payment of taxes.

4. Discover which of the following taxes are levied in your state: general property tax, income tax, inheritance tax, poll tax, license tax, mortgage tax, franchise tax, and corporation tax.
5. History of the poll tax in your state.
6. The shifting of taxes.
7. Are tax assessors in your locality appointed or elected? Are there county or state boards of equalization in your state? How are these boards chosen?
8. American taxation during the Great War.
9. Interview a friendly tax assessor concerning the difficulties of determining property values. Does he believe that people systematically undervalue their own property? What proposals does he offer for the reform of the present method of assessment?
10. Interview a taxpayer. What is his attitude toward the poll tax? the general property tax? the income tax? What proposals does he make for the reform of taxation in your state?
11. The general property tax in your state.
12. Status of the income tax in your state.
13. Status of the inheritance tax in your state.
14. The taxation of corporations in your state.
15. Recent taxation reform in your state.

Questions for Classroom Discussion

1. What is the "benefit principle of taxation"?
2. What the "ability to pay" principle of taxation?
3. What is the more important, the payment of taxes according to the benefit derived, or payment according to ability?
4. What is the remedy when individuals conceal from the tax authorities the amount of their intangible wealth?
5. Does the income tax constitute an undue interference in the private affairs of the individual?
6. To what extent does the inheritance tax tend to discourage the accumulation of wealth?
7. What was the effect of the Great War upon taxation in your state?
8. To what extent should the poor be taxed?
9. Are corporations adequately taxed in your state?
10. Can the adequate taxation of corporations be secured without resorting to a corporation tax which shall be purely Federal in character?
11. Should the national debt be paid?

12. To what extent does the inheritance tax encourage dishonesty?
13. What is the significance of the difference between direct and indirect taxes?
14. What is the advantage of raising revenues from a series of taxes, rather than from a single tax, or, for example, a single tax on land value?
15. What are the chief obstacles to taxation reform in your state?

CHAPTER XXXIII

INDUSTRIAL RELATIONS

a. The industrial situation

477. Labor and capital. — Strictly speaking, four distinct factors are involved in production, namely, land, labor, capital, and enterprise. Yet when we speak of " trouble in industry," or when we read in the newspapers of " industrial disputes," we do not think of a struggle between all four of the productive groups. In such cases, we speak of there being trouble between " labor and capital."

Labor and capital are handy terms to designate the groups which are coöperating actively in production. In the sense in which the term is used in this chapter, " labor " refers to the masses of hired workmen. The term " capital," on the other hand, is used to denote those individuals who are in immediate control of industry, whether employers directing their own plant, or moneyed persons controlling an enterprise through hired managers.

478. The factory system and the laborer. — Wherever it has penetrated, the Industrial Revolution has concentrated large numbers of landless laborers in industrial establishments controlled by relatively few employers. Very early in the development of the factory system, the laborer saw that he was at a relative disadvantage in bargaining with employers. Not only does the average laborer lack funds to tide him over a long period of unemployment, but the fact that labor is generally his sole reliance obliges him to secure work at all hazards. The anxiety and discontent of laborers have been increased by the realization that the factory system affords little opportunity for the average workman to rise to the position of an employer. Most laborers are unable to secure either the training or the capital necessary to set themselves up as independent business men.

479. Why the labor organization was developed. — The risks and limitations which the factory system imposes upon the laboring classes have encouraged workmen to organize for the purpose of promoting their mutual interests. The individual gains, it has been found, when his interests are supported by a group of workmen acting as a unit, and bringing their united pressure to bear upon employers. Workmen gradually discovered that whereas they were individually helpless in bargaining with a powerful employer, unity of action enabled them to secure higher wages and better working conditions than would otherwise have been possible. The origin and development of the labor organization has been the result of this discovery. A labor organization may be defined as a more or less permanent and continuous association of wage earners, entered into for the purpose of improving the conditions of their employment.

480. Growth of the labor organization. — The first labor organizations in the United States were formed early in the nineteenth century, but it was not until about 1850 that the trade union assumed national importance. After 1850, however, and particularly after the Civil War, the trade union grew rapidly. In 1881 a number of national trade unions combined to form the American Federation of Labor. This body, while exercising no real authority over the unions comprising it, is nevertheless an important agency in coördinating trade union policies throughout the country. It is important, also, as a means of formulating and expressing the aims and ideals of the working classes. The Federation had a membership of 2,604,701 in 1914, and in 1922 included more than 4,000,000 members. With the exception of the railroad brotherhoods, nearly all of the important trade unions in the country are affiliated with the American Federation of Labor.[1]

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[1] For a further discussion of the American Federation of Labor, see the *Readings*, pages 470–471.

481. What the trade union wants. — One of the basic aims of the trade union is either to raise wages or to prevent their reduction. Because of the constant shiftings of supply and demand, the prices of commodities are rarely stationary for very long. Over any extended period of time prices are either rising or falling. During a period of rising prices the workmen are at a relative disadvantage,[1] because they have to pay for commodities higher prices than they had anticipated when they contracted to work for a definite wage. In such a case, the union attempts to secure higher wages for its members. When, on the other hand, prices are falling, the workmen gain, because they do not have to pay as high prices as they had anticipated. In this latter case, the laborers attempt to maintain their advantage by opposing any reduction in wages.

The desire of the trade unions to improve the general condition of the working classes has steadily widened the program of organized labor. Shorter hours and better conditions of work are important trade union demands. Unions quite generally approve the principle of a minimum wage,[2] at least for women and child workers. Formerly, and to some extent even now, the unions have opposed the introduction of labor-saving machinery on the grounds that it displaces workmen and hence causes unemployment. Union members generally prefer to be paid by the hour or by the day, rather than so much per unit of product. The reason given for the preference is that strain and undue fatigue often result from the manner in which the employer administers the piece-work system. Trade unions universally demand that employers recognize the principle of collective bargaining. Collective bargaining means that instead of each workman dealing individually with the employer, the workmen bargain with the employer collectively or through the union. Very often, also, the unions demand the closed shop, that is to say, a shop from which all non-union workmen are excluded.

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[1] Rising prices affect all who purchase commodities, of course, but here we are intent upon the position of the laborer only.

[2] The principle of the minimum wage is discussed in the next chapter, Sections 503–505.

482. What the employer wants. — Price movements likewise affect the employer. But whereas the laborer is at a relative disadvantage when prices are rising, the employer tends to gain, for the reason that he secures for his product higher prices than he had expected.[1] Suppose, for example, that a shoe manufacturer can make a profit if a pair of shoes sells for $4.00. If later the price rises to $4.25 and his expenses remain stationary or very nearly so, he reaps an unusually large profit. And whereas in a period of falling prices the laborer tends to gain, the employer often loses heavily, for the reason that he must sell at a relatively low price goods produced at a relatively high cost. If, in the case given above, the price of the pair of shoes falls from $4.00 to $3.75, while the expenses of the manufacturer remain stationary, or very nearly so, he may make little or no profit. Thus while prices are rising the employer attempts to maintain his advantage by resisting an increase in wages, while in a period of falling prices he seeks to cut down his expenses by reducing wages. In either case the immediate interests of workmen and employer are antagonistic.

Just as the growing complexity of the industrial situation has enlarged the trade union program, so the aims of employers have steadily increased in number and in importance. On the grounds that it restricts the fullest utilization of his plant, the employer very often objects to a shortening of the working day, even when there is a corresponding decrease in the day-wage. Some employers are unwilling to provide sanitary workshops for their employees, or otherwise to improve the conditions of employment. The employer very often objects to the minimum wage, as constituting an interference with his " right " to offer workmen what wages he chooses. Collective bargaining is accepted by many employers, but many others insist upon the right to hire and discharge men as they see fit, without being forced to consider the wishes of the union. Employers often oppose the closed shop, and insist upon the open shop, an open shop being defined as one in which workmen are employed without regard to whether or not they are members of a union.

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[1] In a period of rising prices, the employer's costs also tend to rise, but generally not so rapidly as do prices.

b. Industrial warfare

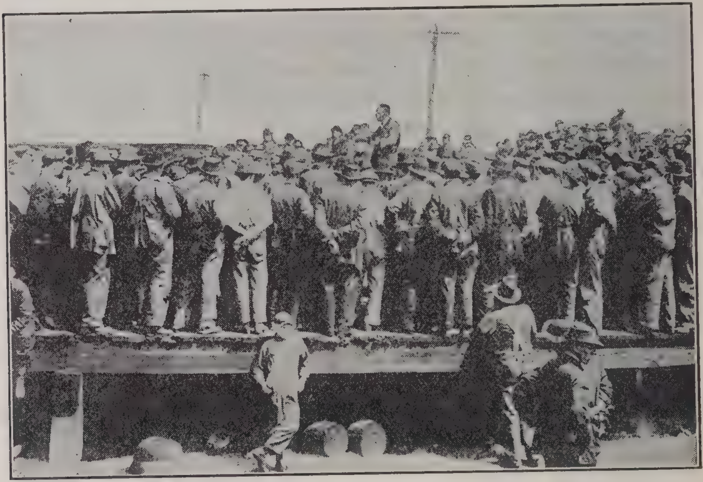
483. The reason for industrial warfare. — By industrial warfare we mean all those disturbances which are characterized by active resentment and strife between labor and capital. Some persons maintain that industrial warfare is criminal and unnecessary, because the interests of labor and capital are identical. Others maintain that such warfare is natural and inevitable, because the interests of labor and capital are directly in opposition. The truth of the matter is somewhat as follows: Fundamentally the interests of labor and capital are in harmony, for both are necessary to industry, and neither could gain from industrial activity without the aid of the other. But in spite of this basic harmony, there are many points of difference between labor and capital. And in man's struggle to improve his lot, he naturally pays more attention to maladjustment than to adjustment. As a consequence, it is only natural that labor and capital fix their chief attention upon their differences, rather than upon those matters with regard to which they are in fundamental accord.

484. Weapons of the trade union. — Labor and capital have many opposing interests; both are strongly organized; both have weapons with which to struggle against the other.

The trade union generally attempts to enforce its demands by threat of, or use of, the *strike*. A strike is a concerted stoppage of work initiated by the workmen as a group.

Sometimes accompanying the strike is the *boycott*, which may be defined as a concerted avoidance of business relations with one or more employers. Suppose, for example, that the manufacturer of some well-known product gets a reputation among union men of being unfair to organized labor. Union men may attempt to punish this employer by refusing to buy his goods, and by persuading other consumers not to use the product of the boycotted manufacturer.

The strike is generally accompanied by the practice of *picketing*, by which is meant the posting of union agents whose duty it is to attempt to persuade non-union workmen not to fill the places of the striking workmen. Pickets may also attempt to persuade customers not to patronize the employer against whom a strike has been launched.



A GATHERING OF LABORERS

To discuss the question of a strike.

Sometimes picketing leads to *intimidation and violence* on the part of either strikers or representatives of the employers.

Such are the chief weapons of the trade union.

485. Weapons of the employer. — In turn, the employer may employ a variety of weapons against workmen with whom he cannot agree. An employer may make use of the *lockout*, that is, he may refuse to allow his labor force to continue at work. Many employers also use the *blacklist*. The blacklist implies the circulation of information among employers for the purpose of forewarning one another against the employment of certain designated workmen.

The employer may also attempt to end a strike by persuading non-union men to fill the places vacated by the strikers. Such men as accept are known as *strike-breakers*, or, in trade union slang, as "scabs."

On the plea that the strike may result in the destruction of his property, the employer may resort to the *injunction*. This is an order secured from a court, and restraining certain laborers in the employer's interest. For instance, an injunction may warn the strikers to keep a certain distance away from the employer's plant. Those who violate such an order are guilty of contempt of court, and are liable to punishment by the court. The trade union bitterly resents the frequent use which the courts have made of the injunction, claiming that the capitalist class is aided by the government in the attempt to destroy the unions.[1]

486. The cost of industrial warfare. — The struggles of labor against capital constitute a species of warfare which involves the general public. Regardless of whether a particular dispute ends in favor of the laborers or the employer, every strike, lockout, or other interference with industrial coöperation lessens the amount of consumable goods in existence, and so detracts from our prosperity. Often great injury results from a dispute which originally was of small proportions. In 1902, for example, the anthracite coal strike cost the country more than $100,000,000, though the strike had been initiated because of a local dispute over recognition of the union. Every year industrial warfare in the United States means a loss of profits to employers, a destruction of property, a loss of wages to workmen, and a diminished production of goods, totalling millions of dollars.[2]

487. Necessity of industrial peace. — Industrial warfare very often results in the correction of abuses, but in many cases it seems to bring little or no benefit to either labor or capital. In any case, it is a costly method, and one which constitutes a menace to the peace of the community. The American public has a right to demand that in the settlement of disputes between labor and capital, industrial warfare be replaced by some method less costly, less violent, and more in harmony with the principles of justice and civilized behavior. Responsibility for the present extent of industrial warfare cannot definitely be placed upon either capital or labor, but at least both sides should be obliged to recognize that the public is a third party to every industrial dispute. We should insist upon fair play for both capital and labor, but we should likewise insist that the interests of the public be safeguarded.

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[1] See, in this connection, the discussion in the *Readings*, pages 479–480.

[2] For the extent of strikes and lockouts in the United States, see the *Readings*, pages 471–473.

c. The improvement of industrial relations [1]

488. Mediation, conciliation, and arbitration. — In the attempt to promote industrial peace, the several American states have been giving an increasing amount of attention to the creation of boards of industrial mediation, conciliation, and arbitration. The words mediation, conciliation, and arbitration are variously used, but the following distinction may be of use. Mediation is an attempt to get the disputants to come together for the purpose of discussing their grievances. Conciliation includes all those efforts which may be made to prevent differences from arising between labor and capital, to heal such differences before they become serious, or to effect a settlement without the interference of outsiders. Conciliation may be attempted by representatives of either labor or capital, or by a third party. Arbitration implies that a third party either attempts to settle the dispute, or actually settles it and renders a decision. The word arbitration is often popularly used to cover mediation and conciliation as well as arbitration.

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[1] Welfare work, piece work, scientific management, and profit sharing are often advocated as methods of securing industrial peace. These devices have been discussed in Chapter XX, as methods of improving the wages system. Mention of such devices is accordingly omitted from this chapter.

489. Voluntary arbitration. — Most states now have some provision for a board whose duty it is to attempt to eliminate industrial warfare. The powers and duties of these boards vary from state to state. In some states the board may investigate labor disputes on its own initiative, but it is not *obliged* to make an investigation. In other states the investigation of industrial disputes by the board is compulsory.

Boards of the type discussed in this section have no powers to *compel* the disputants to arbitrate their troubles, though they may *persuade* the parties involved to resort to arbitration. When the disputants agree to allow the state board to arbitrate the dispute, and when also they previously promise to abide by the decision of the board, the award of the state board is binding upon both parties. When the parties to the dispute have not previously agreed to abide by the award, the board cannot force an acceptance of its decision, but can only attempt to rouse public opinion to the point of demanding a just and speedy settlement of the dispute.

490. Compulsory arbitration in New Zealand and Australia. — The frequent refusal of labor and capital willingly to submit their differences to arbitration[1] has led to the development of the principle of compulsory arbitration.

In New Zealand, compulsory arbitration was adopted as early as 1894. In that country the arbitrating body is known as the court of arbitration, the decisions of which are absolute and binding. At the discretion of the court, the awards handed down may be extended to embrace other employees or employers in the same trade, or in the same locality, or in the whole country. Violations of the award, either by labor or by capital, are punishable by heavy fines. An even more drastic form of compulsory arbitration has been adopted in Australia.

Due to the influence of many complicating factors, the status of compulsory arbitration in these countries is uncertain. Many students of the question maintain that this form of arbitration has materially reduced industrial warfare; on the other hand, other authorities declare that compulsory arbitration in New Zealand and Australia has not markedly improved industrial relations.

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[1] A striking example of the failure of voluntary arbitration will be found in the *Readings*, pages 474–476.

491. Compulsory arbitration backward in the United States. — Although the principle of compulsory arbitration has been familiar to American students of labor problems for more than a quarter of a century, there is as yet very little sentiment in favor of its application to industrial disputes in this country. The explanation of this is not far to seek. Individualism is so strong in the United States that compulsory arbitration is regarded by many Americans as an unwarranted interference in private business. Equally important, perhaps, is the feeling that compulsory arbitration laws would nullify the constitutional guarantee that no citizen shall be deprived of life, liberty, or property without due process of law.[1]

492. The Kansas Court of Industrial Relations. — However, a definite step toward compulsory arbitration was taken when in 1920 the State of Kansas established a Court of Industrial Relations "for the purpose of preserving the public peace, protecting the public health, preventing industrial strife, disorder, and waste, and securing regular and orderly conduct of the businesses directly affecting the living conditions of the people." The law of 1920 declared illegal the suspension of work in those industries which are designated as essential and necessary to the community life. Industrial disputes arising in such industries are subject to compulsory arbitration by the court. The merits of this court are still being debated. Some authorities declare that the court has already demonstrated its value, but other observers claim that so far this tribunal has not operated to reduce labor troubles in Kansas.[2]

493. The significance of compulsory arbitration. — Compulsory arbitration is considered by many students of labor problems to be a half-way stage in the movement toward industrial peace. Although this form of arbitration may often prove helpful, it has several drawbacks. Certainly it does not prevent new disputes from arising. Nor does compulsory arbitration necessarily eliminate ill-will between labor and capital. Again, compulsory arbitration does not markedly encourage the spirit of self-respect and self-control on the part of labor and capital. The present century is an age of industrial stress and change, and it is therefore difficult to say what is the most promising method of securing industrial peace. On the basis of our present data, however, it does not appear that compulsory arbitration will prove generally satisfactory in this country.

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[1] For an explanation of this point, see the next chapter, Section 514.

[2] For a further discussion of the Kansas Court of Industrial Relations, see the *Readings*, pages 476–478.

494. Industrial democracy. — Of late years there has arisen a wide variety of plans, designed to bring about industrial peace, and conveniently grouped under the term "industrial democracy." In its broadest sense, industrial democracy implies the joint direction of industrial policies by employer and employees, working together harmoniously and in the spirit of equality. The forms of industrial democracy are numerous, but the basic idea is that, to a greater or less extent, the conduct of a plant shall be in the hands of a joint committee, some of the members of which represent the employer, and some of which represent the workmen.

As a matter of theory the advantages of this plan are numerous. In the first place, it means control from within, rather than by such an outside force as a state board of arbitration. For this reason industrial democracy might be preferred to arbitration by both labor and capital.

In the second place, a joint committee of management and workmen would have a greater familiarity with industrial conditions within a particular plant than could an outside arbitrating board. The settlement of disputes, many of them intricate, is thus likely to be more intelligent.

In the third place, industrial democracy would enable difficulties to be perceived and removed before they reach an acute stage, whereas arbitration arises only when an industrial dispute has become serious.

In the fourth place, industrial democracy stresses self-control and the spirit of coöperation, qualities of the utmost importance in our complex industrial and social life.

Industrial democracy cannot be considered a wholly satisfactory remedy for industrial warfare, but it may reasonably be expected to play an increasingly important part in the settlement of industrial disputes in the future.

Questions on the Text

1. In what sense are the terms "labor" and "capital" used in this chapter?
2. Summarize, briefly, the effect of the factory system upon the laborer.
3. Why was the labor organization developed?
4. Describe the growth of the labor organization in this country.
5. Outline clearly the aims of the trade union.
6. What does the employer want?
7. Enumerate the chief weapons of the trade union.
8. What are the chief weapons of the employer?
9. What can you say as to the cost of industrial warfare?
10. What is the nature of voluntary arbitration in this country?
11. Discuss compulsory arbitration in New Zealand and Australia.
12. Why has compulsory arbitration been backward in this country?
13. Describe the nature and purpose of the Kansas Court of Industrial Relations.
14. What is the significance of compulsory arbitration?
15. What is meant by industrial democracy?
16. What are the theoretical advantages of industrial democracy?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXXIII.)

1. Discuss the nature of the Knights of Labor. (pages 469–470.)
2. Wherein does the American Federation of Labor differ from the Knights of Labor? (page 470.)
3. Compare the number of strikes in this country during the years 1916, 1917, 1918, and 1919. (page 472.)
4. Comment upon the number of workmen involved in strikes and lockouts in the United States during 1916, 1917, 1918, and 1919. (page 472.)
5. Enumerate the principal causes of strikes and lockouts beginning in 1916, 1917, 1918, and 1919. (page 473.)

6. Illustrate the difficulties of voluntary arbitration by relating the story of the milk wagon drivers' strike in 1921. (pages 474–476.)
7. When was the Kansas Court of Industrial Relations established? (page 476.)
8. What are the chief powers of this court? (page 477.)
9. How are the orders of this court enforced? (pages 477–478.)
10. What, according to Mr. Brandeis, has been the result of the practical immunity of the trade unions from legal liability? (pages 479–480.)
11. What advantages might be reaped by the trade unions if these organizations were incorporated? (page 480.)
12. Outline the plan for industrial peace which was advanced by the Chamber of Commerce of the United States in 1919. (pages 482–483.)

Topics for Investigation and Report

1. The Knights of Labor.
2. History of the trade union in your state.
3. Early history of the American Federation of Labor.
4. Life and work of Samuel Gompers.
5. The fraternal functions of the trade union.
6. Political activities of the American trade union.
7. Trade unionism in the United States during the Great War.
8. Use and significance of the union label.
9. The shop steward movement.
10. The nature and significance of "limitation of output."
11. If possible, investigate an actual strike, and report upon it to the class.
12. Select some one trade union for study. Obtain information on the following points, either by means of literature issued by the union, or by personal interviews with union officials:
    - (*a*) Aims of the union.
    - (*b*) Insurance benefits.
    - (*c*) Political activities of the union.
    - (*d*) Strike procedure.
    - (*e*) Attitude toward arbitration.
13. Interview an employer on the following points:
    - (*a*) Attitude toward the trade union.
    - (*b*) Attitude toward the closed shop.
    - (*c*) What the employer does when a strike is launched against him.

(*d*) Use of the injunction.
(*e*) Attitude of the employer toward arbitration.

14. Incorporation of the trade union.
15. The laws in your state with regard to mediation, conciliation and arbitration.

Questions for Classroom Discussion

1. Closed shop versus open shop.
2. Should trade unions be obliged to incorporate?
3. Is there a right to strike?
4. Is it unpatriotic to strike in war-time?
5. Is compulsory arbitration an interference with private rights?
6. Under what conditions is the shortening of the working day desirable? Are there any circumstances under which it is undesirable?
7. Discuss the statement that "the shorter the working day, the greater the output."
8. Is collective bargaining socially desirable?
9. Why is trade unionism weaker among the unskilled than among the skilled groups of laborers?
10. What is the relation of public opinion to industrial peace?
11. What is the relation of trade unionism to immigration?
12. Under what circumstances is the use of the injunction unwise?
13. The relation of strikes to changes in prices.
14. What is your opinion of industrial democracy as a means of bringing peace between labor and capital?
15. Can all industrial warfare be eliminated?

CHAPTER XXXIV

LABOR LEGISLATION

a. Child labor

495. The causes of child labor. — The causes of child labor are numerous and complex.

One of the immediate causes of child labor is the poverty of the parents. If the father is himself a day laborer, the parents may consider it desirable or necessary to increase the family earnings by putting the children to work. Especially where the parents are ignorant and animated by low ideals, the children are likely to be taken out of school and set to work at an early age.

From the standpoint of the employer, child labor is rendered possible and even desirable by the development of types of work easily performed by small children. The perfection of complex cotton-spinning apparatus, for example, permits children of slender strength to operate huge machines. Competition often obliges employers to hire children, for if one manufacturer sells his product for a lower price than his competitors because he has employed inexpensive child labor, his competitors are forced to do likewise or go out of business. Such a situation may lead to the hiring of children by employers who would otherwise shun this type of labor.

Our school system is indirectly responsible for much child labor. School attendance laws are sometimes so lax that parents can put their young children to work without fear of detection. Again, many children voluntarily enter industry as soon as they are past the minimum age of school attendance, because the school is not made attractive to them. Pride in their ability to "do something," and the lure of good wages, pull many a boy and girl away from studies which have been found dull and uninspiring. Where the parents are ignorant and irresponsible, this withdrawal from school is comparatively easy.

496. The effects of child labor. — Those most familiar with the problem unanimously condemn the practice of habitually employing young children outside the home. The effects upon the children are often extremely injurious. Stunted, crippled and diseased bodies are the results of steady work at too tender an age. Schooling is interrupted, so that child workers tend to develop into adults who are too ignorant and inefficient to be good workmen, and who are incapable of fulfilling the obligations of citizenship. When children are forced into gainful occupations at an early age, the family life is disrupted, and proper home training is difficult, if not impossible.

497. Child labor legislation. — Since 1870 the growing acuteness of the child labor problem, together with an aroused public opinion, has served to increase the number of laws restricting child labor. At the present time, practically all of the states forbid the employment in certain industries of children under fourteen years of age. State legislation controlling child labor is most backward in a few of the southern states.

A Federal child labor law was enacted in 1916, but two years later the measure was declared unconstitutional by the United States Supreme Court.[1] In 1919 a new Federal law was enacted. In the attempt to avoid the charge of unconstitutionality, this measure attacked child labor *indirectly*. The law levied an excise tax of ten per cent on the entire net profits received from the sale of all the products of any mine, quarry, mill, cannery, workshop, factory, or manufacturing establishment, which employed children contrary to certain age and hour specifications. The effect of this law was so to reduce the profits of the employers affected, as virtually to prohibit child labor. By this means the act prohibited child labor in several important groups of industries, though it affected only about fifteen per cent of our child workers. Unfortunately, this law was declared unconstitutional in 1922.

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[1] For an explanation of this point, see Section 514 of this chapter.

498. Present extent of child labor. — The employment of children in factories, mines, quarries, mills, and shops, is now considerably restricted by law. This is true of all parts of the country. In all sections of the country, however, large numbers of children are employed in agriculture, this industry being generally beyond the scope of child labor laws. Large numbers of children are also employed in stores, domestic service, street trades, messenger service, and tenement housework. Altogether there are more than two million children employed in gainful occupations in the United States.

CHILDREN PICKING COTTON IN THE SOUTH

499. Minimum provisions of a good child labor law. — The passage of more comprehensive child labor laws is being advocated by a number of social agencies, notably by the National Child Labor Committee. The minimum provisions of a good child labor law have been set forth by this committee somewhat as follows:

As a general proposition, no child who is under sixteen years of age should be regularly employed in a gainful occupation. There should be an even higher age limit for child workers in quarries, mines, and other dangerous places. Children should not work more than eight hours a day. Nor should they be allowed to engage in night work until they have reached the age of, say, twenty years. All child applicants for industrial positions should first be required to pass educational tests and a physical examination. A good child labor law should provide for a good corps of factory inspectors, as well as for other means of securing the efficient administration of the law. Lastly, it is important that there be adequate school attendance laws, and that there be close coöperation between employers, parents, and school authorities in the matter of child labor.[1]

b. Women in industry

500. Increased number of women in industry. — Women have taken an active part in American industry ever since colonial times, but it is only in recent times that the proportion of women in industry has increased so rapidly as to create a serious social problem. From needlework, domestic service, and teaching, women have spread rapidly into trade, commerce and the professions. A few years ago transportation and police work were monopolized by men, but to-day women are entering those fields rapidly. Though they outnumber men only in domestic and personal service, women are numerous in practically every important calling, except plumbing and street cleaning. Altogether, more than eight and a half million women are engaged in gainful occupations in the United States. The basic causes of the increase of women wage-earners are the restlessness and ambition of modern women, the growing tolerance of public opinion toward wage-earning women, and the realization among employers that girls and women are often a more economical source of labor than men.

501. Legislation regulating the labor of women. — Whereas it would seem desirable to keep young children out of industry altogether, there is a general agreement among students of the problem that the labor of women ought to be regulated, rather than actually prohibited. The fact that women are physically weaker than men, less well organized into trade unions, and generally less able to fight their own battles, is largely responsible for the increasing number of laws regulating the employment of women. The necessity of protecting the health of our present or future home-makers is another important reason for this type of labor legislation.

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[1] For a further discussion, see the *Readings*, pages 487–489.

Factory legislation which aims to make the work place safe and sanitary, affects women as well as male employees, of course. In addition, a number of states have enacted laws designed especially to safeguard women in industry. In some states the number of working hours for women has been cut from eleven to nine, while in other states the maximum number of hours during which women may work is eight. Some states prohibit night work for women in industrial establishments. The great majority of the states now provide for proper rest periods, seats for women employees, and other similar conveniences.

502. Why women receive lower wages than men. — Women often receive lower wages than men. One reason for this is the physical weakness of women, which renders them less desirable for many types of work.

Social conventions, home attachments, and, often, the lack of the venturesome spirit, combine to keep women from moving about in search of improved working conditions to the same extent as men.

The expectation of marriage causes many young women to neglect to increase their efficiency. This at least prevents their wages from increasing as rapidly as those of young men who undergo consistent training because they realize that they will be in industrial pursuits all of their lives.

Low wages are often traceable to the fact that there is an over-supply of girls and women in the labor market. Large numbers of girls and women are partially supported at home, and are able and willing to work for " pin money " only. Many employers take advantage of this fact to offer very low wages to all female employees.

Lastly, an important reason for the lower wages of women is that they have as yet developed the trade union spirit very little. Masses of women in industry constitute a comparatively recent phenomenon, and working women have not yet settled into their niche sufficiently to have developed a strong group spirit. As a result of the relative absence of the trade union among women, the bargaining position of women is often very weak. This means lower wages than would otherwise be possible.

503. The minimum wage. — A minimum wage law is one which declares that in all or specified occupations laborers may not be employed at less than a designated wage. The aim of the minimum wage is to protect the laborer against employment which, under freely competitive conditions, does not pay wages high enough to guarantee a decent living. The first minimum wage law in the United States was passed by Massachusetts in 1912. The movement grew rapidly, and within ten years more than a dozen additional states had adopted minimum wage laws.[1] In some states the law applies only to specified industries, but in other states it covers all occupations. In some states the law covers only the employment of women, but in most cases the principle of the minimum wage applies to women and to minors under eighteen, or even twenty-one years of age. In some foreign countries the minimum wage is also extended to the labor of men, but in the United States men are everywhere exempted from the operation of such laws.

In 1923, the United States Supreme Court declared unconstitutional a minimum wage law which had been in force in the District of Columbia. While not destroying the force of all minimum wage laws in the various states, this decision obliged the partisans of minimum wage laws to avoid future legislation of the particular type frowned upon by the Court in the District of Columbia case.

504. The case for the minimum wage. — The champions of the principle of the minimum wage advance a number of arguments in its favor. It is contended that no industry is socially desirable if it cannot pay a living wage, for when wages fall below a certain minimum, poverty, ill-health, and vice are natural results. When laborers are themselves unable to improve their economic position, it is said, it becomes the duty of the state to guarantee them a living wage. Another argument in favor of the minimum wage is that it not only eliminates considerable poverty, but it makes possible a healthier and more contented labor force. It is claimed that strikes and social unrest are partially eliminated by the minimum wage.

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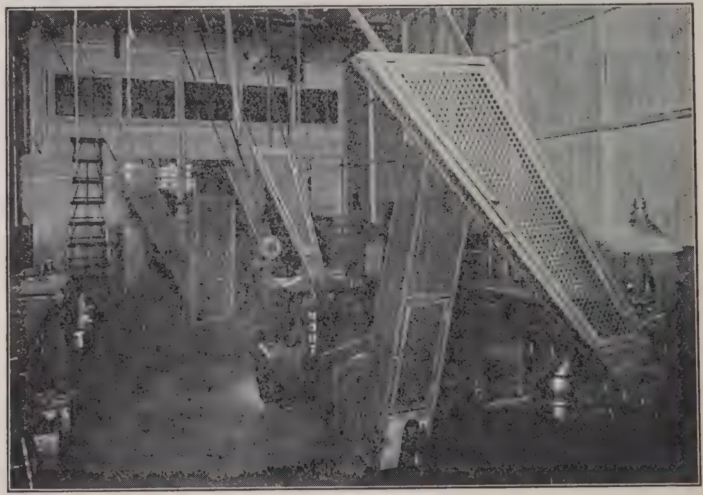
[1] For a discussion of how the minimum wage actually works out, see the *Readings*, pages 491–494.

505. The case against the minimum wage. — In spite of the rapid spread of minimum wage legislation in this country, the principle has met with considerable opposition. It is claimed by some that where poverty is due to bad personal habits, the mere payment of a living wage will not abolish want and misery. It is also urged that because of the frequency and complexity of price changes, and because of different concepts of what constitutes a minimum standard of living, it is difficult to determine what is really a living wage. Some employers maintain that the minimum wage is a violation of economic law, since it forces the payment of a wage which the laborer often does not earn. The compulsory nature of the minimum wage is also opposed on the grounds that it constitutes an undue interference with individual rights.

c. Social insurance

506. The risks of industry. — The risks of industry are very great, in spite of the fact that most states now have detailed laws providing for such safeguards as the screening of machinery and the supervision of dangerous occupations. There are approximately two million accidents in the United States every year, of which about 200,000 are serious. A considerable amount of ill-health is traceable to working with drugs and acids. Continued work in dusty mills and shops, as well as long exposure to the excessively dry or excessively moist atmosphere required by certain manufacturing processes, also give rise to "occupational" diseases. Old age frequently brings poverty and distress, in spite of a life of hard work. Lastly, the laborer runs the risk of unemployment.

507. The meaning of social insurance. — As a general rule, laborers do not voluntarily insure themselves against accident, unemployment, illness, or old age. This is partly because laborers lack the funds to invest in this way. A more important reason, however, seems to be that those in need of such insurance lack — not so much the money — as the intelligence, the self-control, and the foresight necessary to such action. But whatever the reason, the lack of such insurance subjects the laborer and his family to all the distress that follows upon unemployment or accident. If, therefore, the risks of industry are adequately to be insured against, the initiative must be taken by some one other than the laborer. As a result of this situation, there has developed the principle of social insurance. Social insurance, as distinguished from insurance



Safety Devices in a Factory

Parts of the machinery are screened in so that the workmen will be in less danger of injury from moving belts and wheels.

by trade unions or private agencies, is compulsory, and is administered, or at least supervised, by the state or Federal authorities.

508. Insurance against accident. — Accident insurance has been a feature of social insurance programs in Germany, France, and Great Britain for almost a half century, but in this country it was not until 1910 that compulsory insurance against industrial accidents began to be effective. Since 1910, however, the movement has grown rapidly, and at the present time almost all of the states provide for compensation to workmen for accidents sustained in connection with their work.[1] Formerly our courts quite generally held that when a workman could be shown to have suffered an accident because of "personal negligence," the injured person was not entitled to compensation. Under the accident insurance laws of most states, however, it is now held that the personal negligence of the injured workman does not forfeit his right to receive compensation.

In most states the cost of accident insurance is borne primarily by the employer.

509. Insurance against sickness. — A form of social insurance which has been highly developed in several European countries is insurance against sickness, or, as it is sometimes called, health insurance. So far, however, we have left insurance of this type to private effort. The question is attracting considerable attention in this country, however, and it is believed that this form of social insurance will soon be provided for by state law. In 1914 the American Association for Labor Legislation outlined a model law providing for insurance against sickness. Such a law would provide a sickness benefit for a number of weeks, arrange for medical care, and, in case of death, pay a funeral benefit. The cost of such insurance would be divided equally between workmen and employer, while the state would bear the cost of administering the law. This cost would be considerable, because illness might be feigned by unscrupulous workmen desirous of exploiting the law. For this reason there would have to be more careful supervision than in the case of accident insurance.

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[1] Some extracts from a typical workmen's compensation law are to be found in the *Readings*, pages 494–496.

510. Insurance against old age. — Compulsory insurance against old age is an important feature of social insurance systems in European countries, but it is very little known in the United States. We are familiar with the Federal pensioning of military veterans, and with local pensions for firemen and policemen, as well as with state and local pensions for teachers. Such insurance does not, however, touch the question of aged employees in industrial pursuits. Trade unions sometimes provide a measure of old age insurance for their members, but the proportion of workmen affected by this practice is very small.

In 1920, a beginning toward compulsory old age insurance was made, when a Federal law provided for compulsory old age insurance for the civil service employees of the Federal government. Also, the question of compulsory old age insurance is being agitated in a number of states.

511. Should social insurance extend to unemployment? — The fourth and last form of social insurance is insurance against unemployment. This type of insurance is regarded with very little favor in the United States. It is contended by many that to insure workmen against the loss of their jobs would encourage shiftlessness, and that for this reason the principle of social insurance ought not to apply to unemployment.

Now, it is obvious that a considerable share of unemployment is traceable to personal negligence, and it is probably true that insurance against unemployment would discourage thrift and foresight on the part of some workmen. On the other hand, it has been shown statistically that a large share of unemployment is due to crop failures, market fluctuations, and other conditions beyond the control of the workmen. In so far as this is true, there would be a great deal of unemployment whether or not it were insured against. Because, therefore, some unemployment is inevitable, and because unemployment is in many cases beyond the control of the individual, it becomes necessary, or at least desirable, for the state to insure workmen against this unavoidable risk.

Insurance against unemployment has never been tried out in this country, but there is an increasing demand that we include this type of protection in our general program of social insurance.

d. Obstacles to labor legislation

512. The spirit of individualism. — Labor legislation of the type discussed in this chapter is making rapid headway in the United States. Nevertheless, it should be noted that in this field we are behind the more advanced countries of western Europe.

One reason for this is that the spirit of individualism is so strong in this country as effectively to check legislation which appears paternalistic. The weak position occupied by women and children in industry, together with the social importance of normal homes, has somewhat lessened the force of this argument in the case of laws designed to safeguard these two groups. Labor legislation on behalf of men, on the other hand, is still regarded unfavorably in many quarters. For instance, labor legislation protecting men is sometimes held to be unnecessary because men can "fight their own battles." It has also been condemned as weakening, because it makes them rely upon government instead of upon their own efforts.

513. Lack of uniform laws among the several states. — In this country labor legislation has been primarily a state, rather than a Federal matter. The attitude of the states toward labor legislation has been diverse and conflicting. A progressive attitude in one part of the country may be offset by a conservative point of view in another section. In many cases states have feared to enact laws which they believe will hamper local employers and encourage the migration of capital to states which are more lenient in this regard. Thus the adoption of a minimum wage in a particular state may be difficult because it is believed that such a law would increase the costs of local employers, relative to the costs of employers in neighboring states. In such a case, it is feared, local employers will remove their businesses to the neighboring and more lenient state. Thus a state must recognize that it may be penalized for enacting labor legislation by losing important businesses to neighboring and less scrupulous states. This is discouraging, to say the least.

514. The question of constitutionality. — A third important obstacle to labor legislation has been the difficulty of enacting laws which the courts will not declare unconstitutional. The Fifth Amendment to the Federal Constitution declares that no person shall " be deprived of life, liberty, or property, without due process of law." This clause has often been interpreted by the courts in such a way as to nullify laws designed to safeguard the interests of the working classes. For example, a law restricting the employment of women might be declared unconstitutional on the grounds that it interferes with the " liberty " of women to work as many hours, and for as small a wage, as they choose.

Within the last decade, however, the obstacle of constitutionality appears to have declined in importance. Our Supreme Court often reverses its own decisions, as well as reversing the decisions of the lower courts, and it is therefore difficult to ascertain what is truly the trend of judicial decision. Nevertheless, many authorities believe that we are on the verge of an era in which the courts will weigh labor legislation primarily in the light of its social benefit, and only secondarily with respect to how it squares with the technicalities of the Constitution.[1]

Questions on the Text

1. What are the chief causes of child labor?
2. What are some of the effects of child labor?
3. Discuss the attempts to control child labor by Federal legislation.
4. What is the present extent of child labor?
5. Give the minimum provisions of a good child labor law.
6. Discuss the recent increase in the number of women in industry.
7. What is the nature of legislation regulating the labor of women?

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[1] For a further discussion of the constitutionality of labor legislation, see the *Readings*, pages 496–498.

8. Give several reasons why women receive lower wages than men.
9. What is the nature of the minimum wage?
10. What are the chief arguments in favor of a minimum wage?
11. What are the chief arguments against a minimum wage?
12. What is the nature of social insurance?
13. Discuss the four forms of social insurance. Which have been applied in this country?
14. Should social insurance extend to unemployment?
15. In what way does the spirit of individualism retard labor legislation in this country?
16. How is labor legislation retarded by the difficulty of securing uniform laws among the several states?
17. Discuss the problem of constitutionality with respect to labor legislation.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXXIV.)

1. Discuss the loss of working time through death and sickness in the United States. (pages 485–486.)
2. Illustrate the manner in which preventable human wastes may be measured in money. (pages 486–487.)
3. Outline the minimum standards for children entering employment, with respect to age and education. (pages 487–488.)
4. Outline the minimum standards for children entering employment, with respect to hours of employment and wages. (pages 488–489.)
5. Discuss the standards for the employment of women with respect to wages. (page 490.)
6. What standards ought to be observed in establishments employing women? (pages 490–491.)
7. Summarize the attitude of employers toward the minimum wage, as shown by the 1919 investigation of the United States Department of Labor. (pages 492–493.)
8. What did this investigation bring out as to the attitude of organized labor toward the minimum wage? (page 493.)
9. What does the New York Workmen's Compensation Law say with respect to the liability of the employer for compensation? (page 494.)
10. Outline the schedule governing the payment of amounts due the injured workmen for different types of accident. (pages 495–496.)
11. Show how certain negative clauses in our Federal and state con-

stitutions have been interpreted so as artificially to strengthen individual and corporate rights. (pages 496–497.)

12. Discuss the recent trend of court decisions in this country. (page 498.)

Topics for Investigation and Report

1. The extent of child labor in your state.
2. Control of child labor by the laws of your state.
3. Difficulties of enacting legislation to regulate the employment of children in agricultural pursuits. Interview some one familiar with farming conditions for data on this topic.
4. Relation of child labor to the administration of the school attendance laws in your state.
5. Relation of child labor to juvenile delinquency.
6. Extent to which women are employed in industrial establishments in your state or community.
7. Interview a friendly employer on the relative desirability of men and women employees.
8. Status of the minimum wage in your state.
9. The sweat shop system.
10. Work of the National Consumers' League.
11. Social insurance in your state.
12. Interview an official of a local trade union concerning the insurance features of the union.
13. The emergency treatment of injured workmen in a near-by mill or factory.
14. Occupational diseases.
15. The social significance of the police power of the state.
16. Relation between the employment of women and juvenile delinquency.

Questions for Classroom Discussion

1. What is a blind alley job, and what is its danger?
2. What would you say to a child that wants to leave school for the purpose of becoming a messenger boy? a mechanic?
3. Seasonal trades in your community.
4. How does child labor prevent a boy or girl from becoming an intelligent and efficient adult?
5. Discuss the slogan " eight hours for work, eight hours for sleep. eight hours for play."
6. What is the " contributory principle " in social insurance?
7. Should there be a minimum wage for men?

8. Should old age insurance be made a feature of the social insurance program of your state?
9. Should insurance against sickness be made the subject of legislation in your state?
10. Should pensions be paid out of public funds to mothers having dependent children?
11. Should labor legislation be enacted primarily by the Federal government, or by the government of each particular state?
12. The trade union movement among women workers in your state.
13. The advantages of life insurance.
14. How can the school help to educate the general public with regard to the nature and significance of labor legislation?
15. Discuss the statement that "labor legislation is not a cure-all."

CHAPTER XXXV

THE PROBLEMS OF THE INDIVIDUAL

a. The economic significance of youth

515. The child is a debtor. — Most normal adults are directly dependent upon their own efforts, and hence may be called self-supporting. But the child is a debtor who owes much to his parents and to the community in which he lives. Food, clothing, house room, books, and numerous other goods are furnished the child throughout many years. All of these goods have been produced by the efforts of some individual or individuals, but certainly not by the efforts of the child consuming them. The ordinary child spends many years in consuming and utilizing goods which he did not produce. In this sense the child is a debtor, because he takes from the store of wealth without adding to it.

516. The obligation to discharge this debt. — Boys and girls who are thoughtless and careless sometimes take for granted all that their parents and society have done for them. But in accepting all this the child enters into an unwritten contract to discharge the debt. This does not necessarily mean that the youth is to attempt to repay his parents for what they have done for him, for these generally ask no reward, and often perish from the earth before the children reach the age of effective productivity. It does mean, however, that the individual is obligated to make himself a responsible and productive citizen, so that, judged as a whole, his life will mean a surplus of gain to the community. The individual who is careless of his future and who wastes his strength and abilities is just as dishonest as a man who borrows money and then wastes the substance out of which he might have discharged the debt.

517. Youth a period of preparation. — Using the term "youth" to cover the whole period from infancy to maturity, we may say that this period is one of preparation for productive life. It is with this understanding that society is willing to do as much as it does for young people. Adults who habitually consume goods provided by others, without themselves producing anything of value, we call beggars or idlers. Normal children who habitually consume without producing, we consider to be only borrowing in order to be able to produce later on. Games and exercise strengthen the body for an effective life; the discipline of the family circle prepares the child for the hazards and temptations of adult life; the school still further trains the child in order that he may become an effective and responsible citizen.

518. The importance of foundations laid in youth. — The period of youth is thus one of profound significance. Being a boy or a girl is like laying the foundation of a house: the character of the super-structure is largely dependent upon the materials put into the foundation, and upon the manner in which that foundation has been constructed. It is futile to attempt to rear a beautiful house upon a crooked foundation, or to attempt to build a lasting dwelling upon a crumbling foundation. It is likewise futile to expect a full and effective manhood or womanhood unless youth has laid the proper foundations in the way of good habits, a sound body, and a trained mind. All this is trite enough, yet the full significance of such statements as these is realized by *adults*, rather than by *children*. It would be much better if the importance of right living were understood by young people also, since it is only when we are young that we can properly lay the foundations of an efficient and productive life.

b. The wise choice of an occupation

519. The "blind alley" job is to be avoided. — A "blind alley" job may be defined as one which prevents the individual from progressing beyond a certain point. The messenger boy, the newsboy, and the bootblack are examples of children who are engaged in blind alley jobs. These occupations may pay a considerable amount of money, but they rarely offer a chance for advancement. Children plying these trades find that they are in a blind alley, and when it becomes necessary or desirable to earn more money, they discover that these jobs have taught them nothing which will advance them.

The danger of the blind alley job is very great, especially in cities. Thousands of children leave school every year, partly because of lack of interest in their studies, partly because of pride in being able to " hold down a job," and partly because of the necessity of earning money. The blind alley job often attracts because it offers young children relatively high wages. Unfortunately, many children drift into such occupations without seeing that it threatens their future development and earning power. The messenger boy may consider himself vastly superior to the plumber's apprentice who earns, say, only a third as much as does the messenger boy. After a few years, however, the former plumber's apprentice will be earning high wages, while it is likely that the messenger boy will be earning little more than before.

520. The importance of being able to support a family. — In most cases, it is probably true that an occupation is chosen without any great reflection as to whether or not it will yield a living not only to the individual, but to a family. The great majority of boys, for example, probably choose an occupation because they " liked that kind of work," because they " happened to have a chance to do that kind of thing," or for some similar reason.

But the great majority of young men marry and rear families. Furthermore, their families must ordinarily be supported by what they themselves earn. Since a man's earnings are largely conditioned by the nature of the occupation which he chooses in youth, it is important that the choice of occupation take into consideration the responsibilities of marriage and home-making. Many elements enter into a successful home, but one of the most fundamental is the ability of the husband and father to earn a decent living. An enlightened community looks with disfavor upon a young man who drifts into some occupation or other, and then acquires a family without first assuring himself that he will be able to earn a decent living for them. Yet many thousands of young men do this sort of thing. Poverty, ignorance, misery, and vice are natural results.[1]

521. The importance of training. — Under primitive conditions, " general ability " is often more important than specialized skill. Where the division of labor is little developed, every man must do a large variety of things, and he is successful in proportion as he is a jack-of-all-trades, rather than a specialist.

But the complex division of labor has reduced the jack-of-all-trades to a humble position. More and more this is the age of the specialist, the trained man, the man who can do one thing and do it well. The man in search of work is asked, " What can you do? " and often he is refused work unless he is a specialist. It is not enough that he " knows something about machinery," he must be a skilled mechanic. It is not enough that he is " handy at cobbling shoes," he must be an experienced cutter, vamper, or Goodyear stitcher. On every hand the trained man is victorious over the untrained laborer. The boy who wishes to prove successful and prosperous in his chosen work must recognize that without training, often prolonged for many years, he may find himself receiving relatively low wages as an unskilled or semi-skilled laborer.

522. The significance of vocational education. — Vocational training is one of the most significant developments in modern education. This type of education is designed to train the youth to earn a good living in that branch of work for which he seems best fitted. Some of the supporters of vocational education believe that this specialized form of training ought to be commenced very early, and in connection with the regular school curriculum. Others think that vocational education should not be attempted until the child has been given enough generalized training to enable him properly to perform the fundamental duties of citizenship. The whole movement toward vocational education is still so new that these problems cannot be solved at this time.

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[1] This discussion neglects the choice of an occupation by young women, because it is primarily the husband and father who supports the family, or, at least, who *ought* to support the family. Most young working women leave industry upon marrying, or, if they continue to work, their earnings are considered to supplement the wage of the husband, rather than to provide the chief financial basis of the home.

But whatever its relation to the curriculum, vocational education is of very great significance. The vast majority of our young people must earn their own living, and in view of the necessity of specialized training, the vocational advantages of the public schools are of fundamental importance. If vocational education is combined with vocational guidance, it not only prevents the boy or girl from aimlessly drifting into an unskilled occupation, but it singles out for special attention children who show a special aptitude for particular trades and professions.

523. A fallacy to be guarded against. — Many workmen are constantly contrasting their jobs with the jobs of their fellows, and with employments in different parts of the community or country. The American workman is very mobile, and he often changes jobs, or removes to another part of the country, in the hope of improving his lot. In this connection there is an important fallacy to be guarded against. This is that different occupations are to be judged solely in terms of the money wages which they pay. We become so accustomed to measuring things in terms of money, that often we forget or ignore influences which destroy the accuracy of this measure. Let us take an example.

Suppose that I am a day laborer in the rural district adjacent to a large industrial city. I work at rough labor, and earn $3.00 a day. In time I learn of a job in the city, at the same kind of work, but at $4.00 a day. Becoming discontented, I move to the city with the idea that I am bettering myself.

But it may be that I lose instead of gain by this arrangement. If prices in the city are half again as high as in my former home in the country, $4.00 will buy less in the way of food, clothing and house room than $3.00 will buy in the country. Now money, of course, is a means to an end, and ultimately it is consumable goods that I want. If $4.00 in the city buys less than $3.00 in the country, then I have done myself a bad turn instead of a good turn.

Few economic fallacies are more widespread than the habit of estimating the desirability of living in various parts of the country on the basis of wages alone, or on the basis of prices alone. Both must be considered, and together.

c. Principles of thrift

524. The meaning of thrift. — Many people think of thrift as implying stinginess, or the habit of depriving one's self of comforts and even necessities. But properly understood, thrift means wisdom and forethought in utilization. The term is not limited to the saving of money, but in its broadest sense includes every form of wise utilization of time, money, and goods. The wise choice of an occupation is thrift; the wise saving of money is thrift; the right use of leisure time is thrift. Above all, thrift means to use foresight and intelligence in planning. A man who buys a thin, cheap overcoat for $15, and thereby exposes himself to the danger of pneumonia, is not thrifty; under such circumstances it might be thrifty to have paid $50 for an overcoat, if that amount were necessary to secure a coat which would protect his health. On the other hand, it would be lack of thrift to pay $75 for a coat which was slightly more ornamental, but which would not wear any longer, or any more adequately protect the wearer from the weather.

A few additional examples will more fully illustrate the nature and scope of thrift.

525. Thrift in buying. — Thrift in buying implies that the individual will endeavor to secure the greatest possible amount of benefit from the amount of money which he has to spend. Four points may be emphasized in thrifty buying.

(*a*) *Avoidance of harmful goods.* — Obviously thrift in buying means that harmful goods are to be avoided. Whiskey, drugs and many types of sweetmeats and patent medicines are actually harmful to the consumer, and ought not to be purchased. To the extent that such goods are purchased, the individual is failing to apply the principles of thrift to buying.

(*b*) *Avoidance of unneeded goods.* — Again, thrift in buying implies that the individual will avoid the purchase of goods which he does not actually need. Luxuries are avoided by the thrifty man, a luxury being defined as a good which costs a considerable amount of money, but which we do not really need. A luxury to one person may be a necessity to another individual. Thus a physician may actually need an automobile in order to make calls on his patients, but the purchase of an automobile by a shop-girl is luxurious expenditure, because the shop-girl does not actually need an automobile. Again, what is a luxury at one time to a given individual may be a necessity at another time. For example, a city dweller may not actually need an automobile, since he can use the street cars; if he moves to the country and is obliged to come to the city periodically, an automobile may become a necessity.

Thus it is not possible to draw up a hard and fast classification of necessities, comforts, and luxuries. When we speak of a luxury we must speak in terms of a particular individual, and with reference to a particular set of conditions. The most that we can say is that every individual must himself determine whether or not he really needs certain goods. If he uses his intelligence, and is frank with himself, he will readily see whether or not a particular good ought to be purchased.[1]

(*c*) *In buying, the individual ought to be governed by his own income and his own needs.* — Many people realize that they cannot afford to buy certain goods, yet they actually purchase those goods. A basic reason for this is that they fear that other people will ridicule or spurn them for their modest expenditures. The aping of wealthier people is a mania among certain classes, and leads to great privations at home in order to make a brave showing in public. Among even the humblest groups of day laborers there is often to be found a social stratification based upon the prices paid for clothes, the kinds of foods used, and so on. The passion to have the good opinion of our neighbors, and the instinctive humiliation which we tend to suffer when we admit that we possess less wealth than people who are "no better than we are" explain this waste. But it certainly does not justify it. No person should be governed in his expenditures by the standards of his neighbors, but should buy goods which are justified by the size of his own purse, and the character of his own needs.

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[1] For a discussion of the nature of extravagance, see the *Readings*, pages 502–504.

(*d*) *The principle of substitution.* — Substitution is often thought of as the practice of using cheap and inferior goods instead of a finer grade of goods. But properly understood substitution means that by buying one good instead of another, we thereby secure a greater benefit than would otherwise be possible. Substitution is widespread in all forms of industrial life, and if wisely used it is beneficial to a high degree. If, for example, a housewife finds that beef is high in price, while pork is low, she will do well to buy pork instead of beef. Both beef or pork fill the same type of want, and the lower price pork enables the housewife to save money. If hats are high, and caps are inexpensive, the young man may do well to buy a cap instead of a hat. If a desired type of dress goods is unusually expensive or cannot be found in the stores, the girl contemplating a new dress will act wisely to choose another kind of material.

526. Thrift in the utilization of goods. — Thrift in buying goods is often of no avail because individuals use wastefully and carelessly the goods which they so carefully purchase. The use of food, fuel, and clothing in the home illustrates this point. Investigations have shown that many housewives do not know how to prepare foods so as to get the fullest amount of nutriment from them.[1] In numerous households a large proportion of the food purchased is habitually wasted. Scraps of meat, pieces of bread and other bits of food are often thrown away or allowed to spoil. Ignorance and carelessness often result in a waste of wood and coal in the family stove or furnace. Similar wastes occur with respect to clothing. Children are often allowed to tear and soil clothing which the mother later neglects to clean or patch. In many families pride requires the discarding of patched or half-worn garments. In these and innumerable other ways, there may be lack of thrift in the use of goods.

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[1] For some examples of the manner in which food may be wasted in the home, see the *Readings*, pages 505–507.

527. Thrift in saving. — Every individual having an income ought to attempt to save a small proportion of that income periodically. Often individuals explain that they cannot save anything because their income is so small and their expenses so large. Sometimes this is really an excuse for not saving, but in most cases it probably is not. Many of the very persons who complain of their inability to save are in the habit of wasting money and goods. A more intelligent thrift in buying and using goods would enable them to save a considerable amount. Before we excuse anyone from the moral obligation to save something, therefore, we should demand full proof of their inability to set aside anything over actual expenses. Habitual saving, even if the amounts saved are small, is one of the surest methods of helping the individual toward a more effective and prosperous life.

Girls Learning Domestic Science in High School

528. Thrift in investment. — Along with the obligation to save is the obligation to invest to the best advantage the amounts which have been saved. Merely to hoard money which has been saved is as short-sighted as to store tools which have been purchased for use. It may be that the individual would be best served by depositing his savings in a bank, from which he may receive interest. But if there is some more profitable investment, which is at the same time a *safe* investment, surely the individual ought not to be content to put his money in a savings bank. If the money could be advantageously used to educate his children, to buy a home, or to purchase equipment for his business, it may be that some such investment would be more productive than banking the money. In any case it should be realized that money saved but not properly invested is a reflection upon the saver's thriftiness. The individual owes it to himself and to his family to examine every investment avenue open to him, and to place his money where it will bring him the greatest returns consistent with safety.[1]

d. A caution

529. Wisdom cannot be acquired by rule. — In this day of "system" and "efficiency" we hear much of methods designed automatically to enable the individual to solve his problems and attain success. Certain "short cuts" to wise spending and the wise choice of occupations are widely advertised. To take a single example, some reformers have sought to solve the problem of household expenditures by allotting, say, one fourth of the income for food, one fifth for rent, and so on. Others have thought that keeping careful accounts of expenditures will solve the problem of thrift.

But wisdom cannot be acquired so easily. All these mechanical devices are helpful, but they are not fundamental. The conditions of life are constantly changing, and with these changes the individual must shift his emphasis in spending. Under some circumstances it may be proper to spend one fourth of the income for food, under other circumstances it may be unwise. When people rely upon rule, they too often get in a rut and rely blindly upon their rule. It is much more important that we teach the individual to use his *judgment*, to keep in touch with the conditions affecting his welfare, and to give his time and his money to whatever under the particular circumstances promises to bring him the fullest returns. Life is neither so simple nor so static as to be mastered by a handful of rules. Eternal vigilance and shrewd and constant study is the price which must be paid by the individual who desires to solve his economic problems intelligently and with effect.[1]

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[1] For a further discussion of thrift, see the *Readings*, pages 509–512

Questions on the Text

1. What is meant by saying that " the child is a debtor "?
2. In what sense does the child enter into an unwritten contract?
3. Discuss the importance of the foundations laid in youth.
4. What is a " blind alley " job, and what is its danger?
5. What is the relation between marriage and the choice of an occupation?
6. Discuss the significance of vocational guidance.
7. Explain why we should not judge of the desirability of an occupation solely in terms of the money wages which it pays.
8. Explain clearly the meaning of the term " thrift."
9. What can be said as to the problem of spending money for luxuries?
10. What is meant by saying that in buying the individual ought to be governed by his own income and his own needs?
11. Discuss the significance of the principle of substitution.
12. Give some examples of thrift in the utilization of goods.
13. Why should we not easily excuse individuals from the obligation to save?
14. What is the importance of thrift in investment?
15. Explain clearly what is meant by saying that " wisdom cannot be acquired by rule."

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[1] For an illuminating account of the obstacles confronting the individual who wishes to spend his money wisely, see the *Readings*, pages 507–509.

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXXV.)

1. Explain the statement that "the way people spend their money determines the course of production." (page 500.)
2. What does the example of Athens illustrate in this regard? (page 501.)
3. Explain the statement that the high cost of living is sometimes really the cost of high living. (pages 502–503.)
4. Name an important factor in the rise in prices. (page 503.)
5. How may a nation commit suicide? (page 503.)
6. Illustrate the waste of food in marketing. (page 505.)
7. What is the relation between servants and waste? (page 506.)
8. Name some important handicaps under which the housewife labors in purchasing. (pages 507–508.)
9. Compare the purchasing activities of the business manager with those of the housewife. (pages 508–509.)
10. What are the five angles exhibited by thrift? (page 510.)
11. What is meant by "thrift in culture wants"? (page 512.)
12. What, from the standpoint of the producer, is the great driving force back of production? (page 512.)
13. Name some of the so-called "defences of the consumer." (pages 513–514.)

Topics for Investigation and Report

1. "Blind alley" jobs in your community.
2. Reasons why children leave school and enter industry.
3. The history of vocational education.
4. Vocational education in your state.
5. The Smith-Hughes Act.
6. Thrift during the Great War.
7. The purchase of luxuries by the poor.
8. Extent to which Americans "live beyond their income."
9. Significance of keeping accounts.
10. Significance of the savings bank.
11. Examples of a wise use of the principle of substitution. Examples of an unwise use of this principle.
12. Methods of investing sums of less than a hundred dollars.
13. Obstacles to wise spending.
14. Extent to which the school teaches thrift.
15. The influence of habit upon thrift.
16. The teaching of domestic science in the schools.

Questions for Classroom Discussion

1. The difficulties of securing industrial training in middle life.
2. The relation of illiteracy to the blind alley jobs.
3. Extent to which the school is responsible for the fact that many children leave school before their education is completed.
4. Should a wife and mother go out to work in order to help support the family?
5. The relation between vocational guidance and vocational education.
6. Do you see any dangers in the vocational education movement?
7. Does the school adequately prepare girls for home-making?
8. What would you consider as luxuries if you were a bookkeeper with a family of four, and were earning $1300 a year?
9. Can you readily distinguish between necessities and luxuries?
10. Discuss the statement that "it doesn't pay to be thrifty unless you can save a good sized sum."
11. Discuss the statement that "with many people the trouble is not the high cost of living, but the cost of high living."
12. Sometimes it is said that such entertainments as luxurious balls and house parties benefit the community because they give employment to laborers. Discuss.
13. Sometimes it is said that a snow storm or a flood is a good thing because it gives employment to laborers. Discuss.
14. Can "plain living" be over-done? Explain.
15. Discuss the meaning of the statement that "he who does less well than he can, does ill."

CHAPTER XXXVI

SUMMARY AND CONCLUSION

530. What is the outlook for American industry? — We have completed an extended and detailed survey of American industry. Beginning with a description of the physical characteristics of North America, we noted the influence of the Indian upon the virgin continent. The tremendous development which followed the European colonization of the continent was traced in some detail. The Industrial Revolution was described, and the complex industrial system resulting from that revolution was analyzed. The problem of distributing the income of industry, and a series of programs designed to remedy the defects of capitalism, formed the basis of an extended discussion. Lastly, we examined a number of selected industrial problems, ranging in content from the conservation of natural resources to the problems of the individual. At the end of this whole discussion, we may ask, what is the outlook for American industry? What conclusions may we draw, and what final opinions entertain?

531. The widening circle of our industrial problems. — No thoughtful person can survey even the barest outline of our industrial history without carrying away the conviction that the circle of our industrial problems is steadily widening. Our national history is the story of the increasing efficiency of our industrial organization, but it is the story, too, of the increasing prominence of the defects and drawbacks of capitalism. The evils of railroad growth, the development of the trust, the growing complexity of the tariff, the decline in the effectiveness of our taxation system, these developments illustrate the widening circle of our problems. Great emergencies, such as the Civil War and the Great War, have not only created new problems, but have emphasized old ones and greatly widened their scope. With the passage of every decade the burden upon the student of our industrial organization becomes heavier and heavier.

532. Our industrial problems involve social and political considerations. — Not only has the circle of purely industrial problems widened during our national history, but this same period has witnessed a growing complication of industrial with social and political problems. Though for convenience we study economics apart from government, and both of these subjects apart from sociology, all three subjects are very closely related. The economist, therefore, who insists upon considering industrial problems without a sober consideration of their social and political phases is seeing with clouded vision. For example, the conservation of natural resources is fundamentally an economic question, but within the last quarter of a century we have been impressed by its profound social significance, as well as with the importance of its political aspects. The tariff may be primarily an economic issue, but the student of economics neglects its political elements at his peril. Taxation, too, is both an economic and a political issue, and, to an increasing extent, an important social problem. Industrial relations, the labor of women and children, and social insurance, all fall within the purview of the social worker and the expert in government, as well as within that of the economist. Industry has permeated all phases of our civilization, with a resultant increase in the complexity of problems which in this book we have studied chiefly from the economic side.

533. Problems are nothing to be ashamed of. — The problems which confront the American people are often spoken of in a shamefaced way. This is an attitude which this book has attempted to guard against. The presence of numerous problems in American life does not mean that our civilization is preëminently unsettled and defective. Though we have uncovered many defects in industry, it should be remembered that we are predominantly a normal, healthy, prosperous people. But our virtues demand our attention less urgently than do our defects. If we have seemed to be over-concerned with the defects of capitalism, the student should not on that account conclude that our industrial life is chiefly made up of defects. Rather he ought to realize that it is precisely because a situation involves a problem that our attention is challenged.

Thus problems are nothing to be ashamed of. Where life is dull and civilization static, there are relatively few problems; where life is progressive and civilization steadily advancing, problems are numerous and pressing. Capitalism is a living, growing institution, constantly in the process of evolution and change. As it develops we are obliged to make adjustments. Labor legislation, welfare work, the arbitration of industrial disputes, these are only a few examples of this adaptation to new conditions. Thus problems imply adjustment, development, the desire for improvement and advancement. They are signs of progress, the growing pains of civilization, offering opportunities for personal achievement and pointing the way to national progress.

534. Interest in our industrial problems is increasing. — Our national history clearly illustrates a distinct change of attitude on the part of the American people toward our problems.

In the earlier part of our history there was relatively little public interest in industrial conditions, indeed the attitude of the government and of the public was distinctly a negative one. The passion for freedom which characterized our national birth, the fervor for democracy which developed in the 19th century, and the growth of individualism, all helped to create in this country a strong feeling against public " interference " in business. Business was held to be a private affair, into which the government had no right to intrude. Often the cry of " despotism " was raised when it was suggested that the public had an interest in the conduct of industry. No people on earth has been more jealous of private rights than the American people.

But in the period following the Civil War the evils of capitalism multiplied so rapidly that we were obliged to abandon this negative attitude. The rapid development of industry effected profound changes in American life, and gave rise to grave problems. The absence of effective restraints upon industrial enterprise had allowed private business to injure the public. The unrestricted growth of cities, the spread of child labor, the maintenance of insanitary factories and mills, the sudden rise of monopoly, combination in railroad and other public industries, these and other evils obliged us to take an active interest in business. Our former attitude of indifference or non-interference had enabled American industry to develop swiftly and freely, but it had also allowed great evils to develop.

Accordingly, we are now in a period in which public interest in industrial problems is rapidly increasing. Half-hearted attempts to control business in the public interest were made after 1875, but it was not until about 1900 that we really made headway in this field. Since 1900, and particularly since 1910, progress has been rapid. The Clayton Act and the Federal Trade Commission Act of 1914, the Federal Reserve Act of 1913, the Federal Farm Loan Act of 1916, the Federal Child Labor Act of 1918, and the Transportation Act of 1920, these are a few of the important pieces of legislation which indicate that at last we are on the verge of an effective control of "private" business in the public interest. Between those who have heretofore struggled in unrestrained competition there has arisen a new and powerful figure, commanding attention. This is the figure of Public Interest, demanding that individuals refrain from benefiting themselves at the expense of the public. When the actions of the individual are unrestrained we have criminal license, not liberty. True liberty, we are coming to realize, demands a careful regulation of the activities of the individual, so that the public will not suffer from the instinct of self-interest.

535. Capitalism is being improved. — On every hand we see evidences of improvement in the great industrial mechanism by means of which we get our living. Both the Federal and the state legislatures are passing more and more laws designed to safeguard competition and to protect the public interest. Monopoly is being checked, and the adulteration of food-stuffs suppressed. Important problems still face us, but, as we have seen in the preceding chapters, we are making steady progress in the conservation of natural resources, in taxation reform, and in solving other problems. The wages system will probably endure, but we are doing much to ease its weight upon the laborer. Factory laws, welfare work, social insurance, minimum wage laws, the shortening of the working day, these and other developments are improving the lot of the laborer. He who judges our condition in the light of its recent improvement must be cheered by our steady, even rapid, progress. Compared to conditions two or three decades ago, we are now better fed and housed, enjoy more leisure time, and are safer in going about our daily work than ever before in the history of our country.

536. The further improvement of capitalism demands the coöperation of all types of reformers. — We have seen that capitalism is so vast and so many sided that there can be no simple remedy for its defects. Its reform will consequently necessitate the coöperation of all types of reformers. The employment manager, the welfare worker, the taxation expert, the student of banking, the marketing specialist, the scientific forester, these and innumerable others are needed. Each may contribute something helpful, but no one can embrace all of the phases of all of our problems. Just as men learned to coöperate in order to increase their control over Nature, and hence to improve their living, so they shall have to learn to coöperate in order to perfect the great mechanism which has grown up under their hands.

And in attempting to perfect this mechanism, shall we not be sufficiently broad-minded and public-spirited to accept good ideas and valuable suggestions from whatever source derived? Surely the social reformer who rejects a suggestion simply because it came from a single taxer, is narrow-minded. Surely a conservative politician who brushes aside a constructive proposal simply because it came from a socialist, is penalizing his country for the sake of indulging his own pettiness. No single group of reformers has a monopoly of intelligence and public-spiritedness, and no one group can truthfully say that the ideas of its opponents are wholly without value. Capitalism, we cannot too often repeat, is complex and its defects are numerous. To remedy these is a herculean task, calling for the coöperation of all who have something of value to offer. If we consider the improvement of our industrial life as of more importance than our personal conceit we shall be willing to accept sound advice from whatever source derived.

537. The importance of being open-minded. — Above all, the student of industrial life should be open-minded. Whatever the present trend of events, no one can say positively what changes the future will bring. Wise men who have lived long, and who in their own lives have seen profound changes come about almost without warning and sometimes almost over night, have acquired a receptiveness of mind and an openness of outlook which the younger generation would do well to cultivate. It may be a mere flight of fancy to entertain fantastic notions and extravagant plans, but it is wisdom always to listen with attention and respect to new suggestions. Columbus would perhaps never have discovered America had not a Spanish queen believed this attitude to constitute true wisdom. The constant change in industrial life, the swift development of social and political issues affecting business, these and other considerations ought to encourage us not to believe our own opinions infallible, but to remain open to conviction and willing to change beliefs which have been fairly disproved.

538. The significance of economics. — This book has introduced the student to a new subject — economics. New in the sense that it emphasizes a way of looking at things which is perhaps novel to the average boy or girl, but old in that it deals with familiar things, as does the study of government, geology, sociology, or physics. For the sake of convenience we have concentrated upon the industrial aspect of our problems, but the student ought not to conclude that economics is merely a " bread and butter " study. It is true that it deals with material, practical things, but only because these are a means to an end. Economics is more fundamental to civilization than are sculpture, painting, and literature, because these latter pursuits cannot be engaged in by the individual until a living is assured him. If we consider economics as the study of the most basic needs in human life, we shall see that the subject is not narrow, but so extensive as to underlie all other subjects; we shall see that it is not materialistic, but inseparable from spiritual associations and implications.

539. Our economic ideals. — What, then, shall be our economic ideals in leaving this subject?

First of all, the student ought to recognize his obligation to *use* whatever information and reasoning ability he may have acquired in this study of economics. For of what social value is knowledge which is never used?

In the second place, the student ought to feel obligated to attempt to add to his knowledge and grasp of industrial conditions and problems. The amount of information which can be included in such a book as this is relatively very small, and if the student does not continue his studies and observations on his own initiative he will find that the complexities of the industrial situation will shortly outrun his knowledge.

In the third place, the student ought to attempt to make himself a productive and responsible member of the community, in accordance with the principles of personal economy discussed in the preceding chapter.

In the fourth place, the student ought to feel that when he has arrived at maturity, and has taken his place in the community as a normal adult, he ought to help solve the great industrial problems which face us. The percentage of men and women who have the advantage of education is small, and particularly small is that percentage which has had the opportunity to study such complex matters as taxation, socialism, and the tariff. Students who have pondered over this book ought to feel that, in so far as they have the ability, they ought to be willing to serve as leaders in their community, in the study and solution of industrial problems.

540. The promise of American life. — Rich in natural resources, ample in extent, encouraging to man's helpful efforts, North America fulfills the first condition of national greatness. Intelligent and industrious, law-abiding and devoted to the building of homes, our population fulfills a second condition of national greatness.

Here we have all the raw materials of a finer industrial civilization than the world has yet known. From the economic standpoint, our ultimate attainment of this goal rests upon the promise which we show of being able to perfect our industrial life.

To what extent will this promise actually be realized? Much depends upon the extent to which each of us assumed the responsibilities of industrial citizenship. Those who have gone before us conquered a wilderness, harnessed natural power, and spied out the hidden resources of Nature. But it is not for us complacently to accept the result. Much has been done, but much more remains to be done. Each age may be said to have its peculiar burdens and responsibilities. The prime task of the colonist and westward pioneer was to fashion homes out of a wilderness, and to work out the principles of the Industrial Revolution. The task of the American population of the period following the Civil War was to launch the attack against the industrial evils arising in that period. The burden of our generation is to continue this attack and to bring it to a successful conclusion. New problems will arise, old ones may resist onslaught after onslaught, but encouraged by past successes and spurred on by the vision of our future goal, shall we not struggle valiantly, with clear eye and strong heart? Let us say "Yes."

Questions on the Text

1. Illustrate the statement that "the circle of our industrial problems is steadily widening."
2. Show that our industrial problems involve social and political considerations.
3. Why are problems nothing to be ashamed of?

4. What was our attitude toward industrial problems in the earlier part of our history?
5. When and why did this attitude change?
6. Name some laws which indicate the recent change in our attitude toward business.
7. Name a few of the ways in which capitalism is being improved.
8. Discuss the statement that "the further improvement of capitalism demands the coöperation of all types of reformers."
9. What is the importance of being open-minded in the study of industrial conditions?
10. Why may we say that economics is not materialistic?
11. Name four important economic ideals.
12. What is the promise of American life?

Questions on the Required Readings

(Williamson, *Readings in Economics*, Chapter XXXVI.)

1. Is the standard of living in the United States rising, falling, or remaining stationary? (page 515.)
2. Name the five necessities of civilized existence. (page 515.)
3. What is the importance of the attitude of the individual? (page 517.)
4. What, according to Herbert Croly, is the duty of the individual? (page 517.)
5. What is meant by the statement that "the individual needs more faith in his own individual purpose and power"? (pages 518–519.)
6. How can the individual best serve his fellows? (page 519.)
7. Name an earmark of a good economist. (page 519.)
8. Trace, carefully, the steps in the story of the broken window, and point out the lesson that it illustrates. (pages 520–522.)
9. Name a persistent characteristic of civilized man. (page 522.)
10. What circumstances tempt us to become pessimistic concerning the future of the human race? (page 523.)
11. Why does Bastiat believe that, in spite of these circumstances, there are no grounds for despair? (pages 523–524.)
12. What, according to Elihu Root, is the utmost that government can do? (pages 524–525.)
13. How is the Promise of American Life to be fulfilled? (page 528.)
14. What, according to Herbert Croly, is the proper way to achieve a purpose? (page 529.)

Topics for Investigation and Report

1. Interview an elderly friend or relative for the purpose of securing a list of industrial problems which were considered important forty or fifty years ago. Compare with a list of problems which are important to-day.
2. Draw up a list of problems that are primarily economic, but which involve social and political considerations.
3. Draw up a list of problems that are primarily social, but which involve economic considerations.
4. Draw up a list of problems that are primarily political, but which involve economic considerations.
5. The growth of public interest in industrial conditions in your community.
6. The doctrine of mercantilism.
7. The theory of laissez faire.
8. Legislation in your state, which indicates an increase in public interest in business.
9. Restrictions upon the institution of private property.
10. Make a list of the notable improvements effected in our industrial system in the last fifty years.
11. Extent to which various groups of reformers in your section are willing to coöperate with one another.
12. The duty of the individual as a wage earner.
13. The duty of the individual as an employer.
14. The duty of the individual as a consumer.
15. The importance of public opinion in the solving of our industrial problems.

Questions for Classroom Discussion

1. Discuss the statement that " problems are the growing pains of civilization."
2. Can capitalism be perfected?
3. Under what circumstances is it impossible for various groups of reformers to coöperate with one another?
4. When does public interest in business become an undue interference in private business?
5. Discuss the statement that " freedom may be increased by an increase in the restrictions upon individual action."
6. How can we test a scheme in order to tell whether it is a fantastic proposal or probably a sound plan?
7. Discuss the statement that " things ever seen are unseen."
8. The meaning of " industrial progress."

9. Discuss the relative importance, in solving our economic problems, of legislation and education.
10. The merits and defects of public opinion.
11. Discuss the statement that "the basis of all human rights is social expediency."
12. How would you answer the charge that economics is materialistic and unethical?
13. Name some economic ideals in addition to those given in the text.
14. What is your idea of the promise of American life?
15. Just how do you intend to apply what you have learned in this course?

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